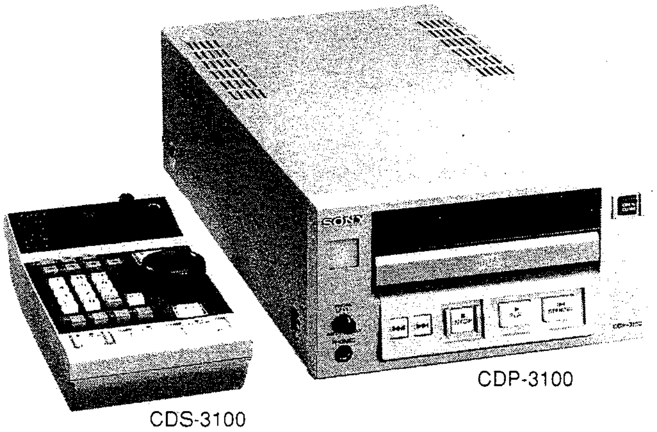
SONY®

COMPACT DISC PLAYER UNIT

CDP-3100

COMPACT DISC PLAYER CONTROL UNIT

CDS-3100



MEMORY BOARD
DABK-3101

COMPACT
disc
DIGITAL AUDIO

MAINTENANCE MANUAL Part 2

1st Edition

CDP-3100 (For J)	Serial No. 10001 and Higher
CDP-3100 (For UC)	Serial No. 20001 and Higher
CDP-3100 (For AE)	Serial No. 50001 and Higher
CDP-3100 (For UK)	Serial No. 60001 and Higher
CDS-3100	Serial No. 10001 and Higher
DABK-3101	Serial No. 10001 and Higher

6940

CAUTION

As the laser beam used in this Compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

Laser Diode Properties

Material	:	GaAlAs
Wave length	:	780 nm
Emission duration	:	Continuous
Laser output power	:	10 µW (max)
Beam divergence	:	(H) 16° ±9°
		(V) 32.5° ±12.5°

CLASS 1
LASER PRODUCT TO IEC 825

LASER KLASSE 1
PRODUKT NACH IEC 825

This Compact disc player is lassfied as a CLASS 1 LASER PRODUCT. The CLASS 1 LASER PRODUCT label is located on the side of the unit.

ADVARSEL USYNLIG LASERSTRÅLING VED ÅBNING, UNDGÅ UDS/ETTELSE FOR STRÅLING.
ADVARSEL USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES, UNNGÅ EKSPONERING FOR STRÅLEN.
VARNING OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD, STRÅLEN ÄR FARLIG.
VARO! NÄKYMÄTÖN AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE, ÄLÄ KATSO SÄTEESEN.

This label is located on the side of the unit.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 3.5mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 5.25V so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20V AC range are suitable. (See Fig. A)

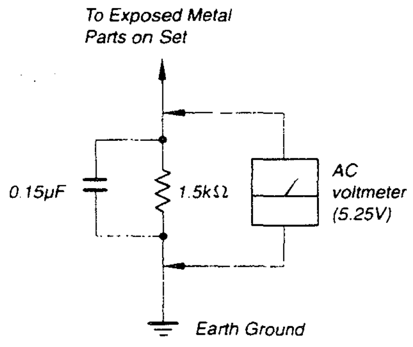


Fig. A. Using an AC voltmeter to check AC leakage.

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このマニュアルについて

本書の目的

本書は、下記対称機種のメンテナンスマニュアル　パート2です。

対称機種：CDP-3100, CDS-3100, DABK3101

本書は、サービスエンジニアの方々にご使用いただくことを想定し、これらの機種の部品レベルまでのサービスを前提とした情報(回路図、マウント図、詳細パーツリスト等)を記載しています。

構成

本書の構成を把握していただくために、全章の概略を以下に説明します。

メンテナンスマニュアル　パート2

第1章　サービスインフォメーション

電源ヒューズの交換、補修用部品注意事項について説明しています。

第2章　電気調整

部品レベルで交換した際に必要な調整について記載しています。

メンテナンスマニュアル　パート1の電気調整と合わせて使用して下さい。

SECTION 3　BOARD LAYOUTS

マウント図、部品の基板アドレスを記載しています。

SECTION 4　SCHAMATIC DIAGRAMS

回路図を記載しています。

SECTION 5　SEMICONDUCTOR PIN ASSIGNMENTS

使用半導体の標準図を記載しています。

SECTION 6　SPARE PARTS

分解図・メカ部品表、電気部品表を記載しています。

メンテナンスマニュアル　パート1(CDP-3100に付属しています)
第1章設置
第2章サービスインフォメーション
第3章電気調整
第4章BLOCK DIAGRAM & DESCRIPTIONS
第5章SPARE PARTS

Introducing this Manual

Purpose of This Manual

This manual is Maintenance Manual Part 2 for the following models.

Models:CDP-3100, CDS-3100 and DABK-3101

This manual describes the information items (adjustments, board layouts, schematic diagrams, detailed parts list, etc.) that premise the service based on parts.
If this manual is required, please contact to Sony's service organization.

Contents

The following are a summary of all the sections for understanding the contents of this manual.

Maintenance Manual Part 2

SECTION 1. SERVICE INFORMATION

Describes power fuse replacement and precautions for repair parts.

SECTION 2. ELECTRICAL ADJUSTMENTS

Describes adjustments required when parts are replaced. Use this section with referring to the electrical adjustments section in Maintenance Manual Part 1.

SECTION 3. BOARD LAYOUTS

Printed circuit pattern of circuit boards and their printed symbols are shown in the almost same order of schematic diagrams.

SECTION 4. SCHEMATIC DIAGRAMS

Contains schematic diagrams of printed circuit board.

SECTION 5. SEMICONDUCTOR PIN ASSIGNMENTS

Contains pin assignment diagrams of semiconductors used.

SECTION 6. SPARE PARTS

Contains exploded views, mechanical parts list, and electrical parts list.

Maintenance Manual Part 1 (Supplied with CDP-3100)
SECTION 1. INSTALLATION
SECTION 2. SERVICE INFORMATION
SECTION 3. ELECTRICAL ADJUSTMENTS
SECTION 4. BLOCK DIAGRAM AND DESCRIPTIONS
SECTION 5. SPARE PARTS

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1. SERVICE INFORMATION

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3. BOARD LAYOUTS

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5. SEMICONDUCTOR PIN ASSIGNMENTS

6. SPARE PARTS

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第1章
サービスインフォメーション

1-1. 電源ヒューズの交換方法

電源ヒューズは、CDP-3100のAC-146基板に搭載されている。ヒューズ交換の際は、セット内の異物（ビス etc.）等、ショートの原因を取り除くこと。

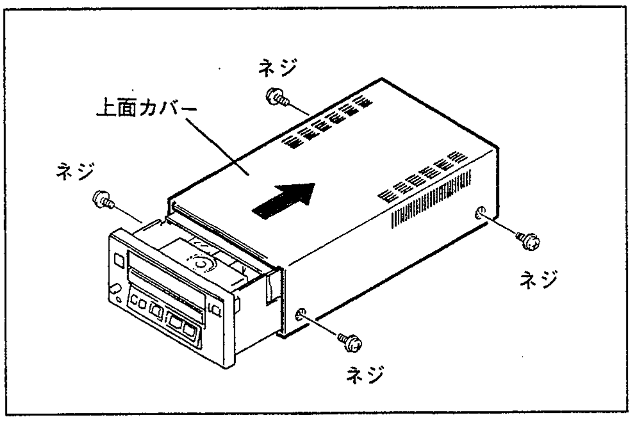
用意するヒューズ

- J向け
  ヒューズ　2A、125V:1（部品番号1-532-743-11）
- UC向け
  ヒューズ　2A、125V:1（部品番号1-532-743-11）
- AE向け
  ヒューズ　2A、250V:1（部品番号1-576-228-11）
- UK向け
  ヒューズ　2A、250V:1（部品番号1-576-228-11）

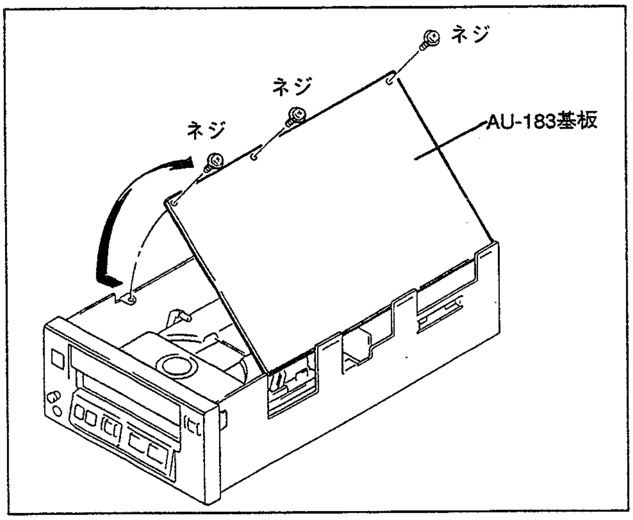
交換方法

注意：交換は、電源コードをACコンセントから抜いた状態で行う。

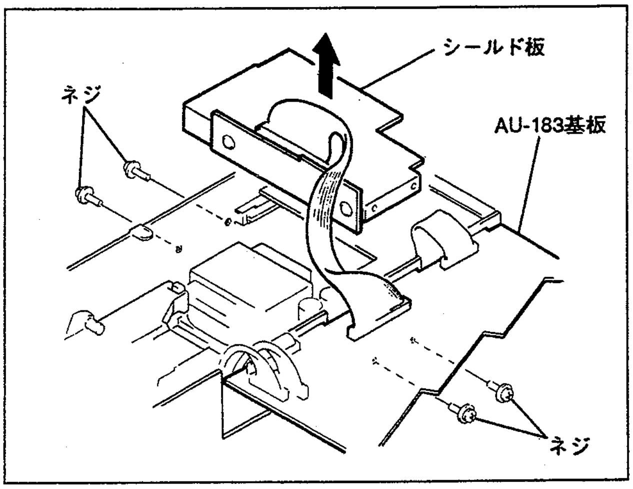
1. ネジ4本を外し、上面カバーを取り外す。


ネジ
上面カバー
ネジ
ネジ
ネジ

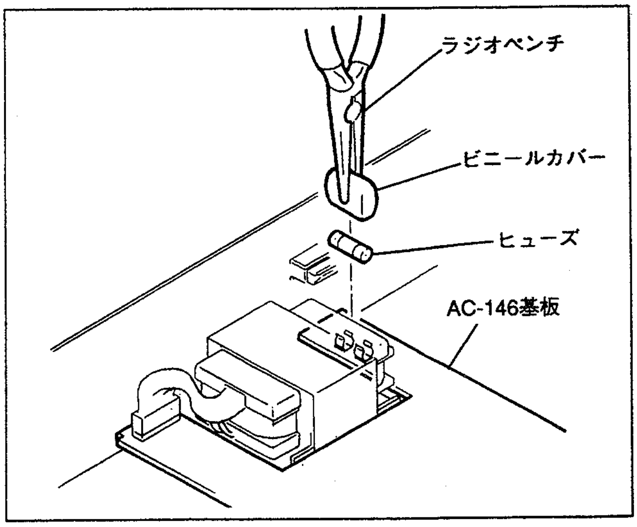
2. ネジ3本を外し、AU-183基板を開く。


ネジ
ネジ
ネジ
AU-183基板

3. ネジ4本を外し、シールド板を取り外す。


シールド板
ネジ
AU-183基板
ネジ

4. ラジオペンチ等を使用して、ヒューズからビニールカバーを取り外す。
5. ヒューズをホルダより取り外し交換する。


ラジオペンチ
ビニールカバー
ヒューズ
AC-146基板

6. ステップ1から4の逆の手順で組み立てる。
   注意：ヒューズには必ずビニールカバーを装着する。

1-2. 補修用部品注意事項

1-2-1. 補修用部品注意事項

(1) 安全重要部品

回路図、分解図、電気部品表中で⚠印付きの部品は、安全性を維持するために重要な部品である。従ってこれらの部品を交換する時には、必ず指定の部品と交換すること。

(2) 部品の共通化

ソニーから供給される部品はセットに実装されているものと異なることがある。

これは部品の共通化、改良等によるものである。

分解図や電気部品表には現時点での共通化された部品が記載されている。

(3) 部品の変更

部品の変更に関する情報は第7章「CHANGED PARTS」を参照すること。

(4) 部品の在庫

部品表のSP(Supply code)欄にoで示される部品は交換頻度が低い部品で、在庫していないことがあり、納期が長くなることがある。

(5) コンデンサ、抵抗の単位

回路図、分解図、電気部品表中、特に明記したものを除き、下記の単位は省略されていることがある。

コンデンサ：μF
抵抗　　　：Ω

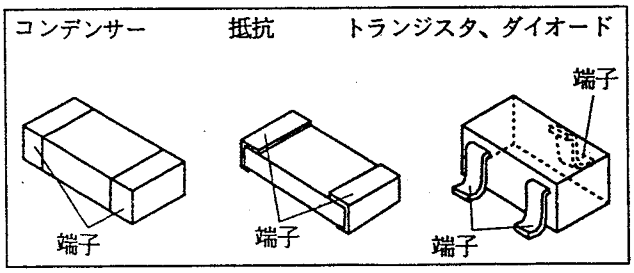
1-2-2. チップ部品の交換方法

用意する工具

はんだコテ　：20W程度。できれば、コテの温度を270±10°Cにコントロールできる温度コントローラを使用すること。
編組線　　　：SOLDER TAUL または同等品
　　　　　　　ソニー部品番号　7-641-300-81
はんだ　　　：直径0.6mmが望ましい。
ピンセット

はんだ付条件

コテ温度　　：270±10°C
はんだ付時間：一端子について2秒以内にする。



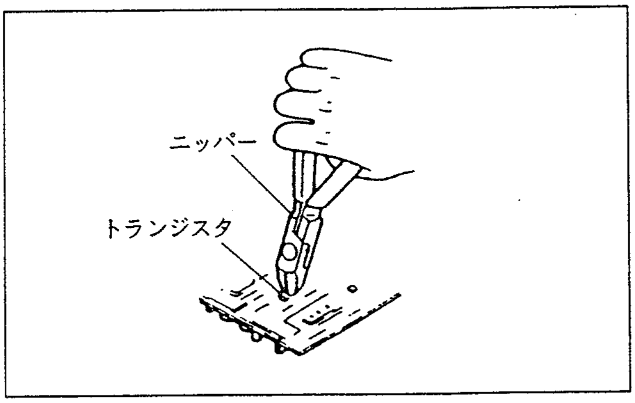
・抵抗、コンデンサの交換

(1) はんだコテの先をチップ部品の上にのせてチップ部品を加熱し、はんだが溶けた状態で横にずらす。
(2) 取り外した部分のパターンはがれ、隣接はんだ付部のダメージ、ブリッジなどがないことを確認する。
(3) パターンにうすく予備をはんだする。
(4) 新しいチップ部品をパターンにのせ、両端をはんだ付けする。

注意：取り外したチップ部分は再び使わないこと。

・トランジスタ、ダイオードの交換

(1) ニッパにて部品の端子を切断する。
(2) 切断した端子をはんだコテで取り除く。
(3) 取り除いた部品のパターンはがれ、隣接はんだ付部のダメージ、ブリッジなどがないことを確認する。
(4) パターンにうすく予備はんだをする。
(5) 新しいチップ部品をパターンにのせ、端子をはんだ付けする。


ニッパー
トランジスタ

・ICの交換

(1) 編組線を使って端子のはんだを取り除く。
(2) はんだコテで加熱しながら、ピンセットなどを使って端子を一本づつパターンから外し、ICを取り除く。
(3) 取り除いた部分のパターンはがれ、隣接はんだ付部のダメージ、ブリッジなどがないことを確認する。
(4) パターンにうすく予備はんだをする。
(5) 新しいチップ部品をパターンにのせ、端子をはんだ付けする。

1-2-3. NOVRAMの交換方法

NOVRAMを交換する場合は、NOVRAM DATAを、交換後のNOVRAMに書き込むことが必要となる。
下記の基板にはNOVRAMが装着されているため、交換後は下記の処置を行う。
使用するNOVRAMは部品表に記載されている部品を使用する。

AU-183基板(ICD4)

用意する部品

- IC CXK1024M ソニー部品番号 8-752-348-00

手順

(1) CDP-3100の電源スイッチをONにする。
ディスプレイに最初に表示されるチャンネルオリジンデータ(例 cd2 1)の値を記録(メモ)する。

(2) CDP-3100の電源スイッチをOFFにしてAU-183基板を開く。

(3) ICD4を外し、新しいICと交換後、AU-183基板を取り付ける。

(4) CDP-3100の[■STOP]キーを押しながら、電源スイッチをONにし、チャンネルオリジンデータ設定モードとする。

(5) [|◀◀]キーおよび[▶▶|]キーを用いて、(1)で記録(メモ)した値を設定し、[■STOP]キーを押して登録する。

(6) CDP-3100の電源スイッチをOFFにし、再度ONにしたときに、設定したチャンネルオリジンデータが表示されることを確認する。

第2章
電気調整

ここでは、以下に述べる部品を交換した際に必要な調整について述べる。
メカデッキASSYまたはAU-183基板を交換した際に必要な調整／確認については、メンテナンスマニュアルパート1を参照して行なう。

2-1. 準備

使用機器、治工具

使用機器

名称	仕様(Minimun)	機器名
オシロスコープ	周波数レンジ： DC-150MHz 精度：5 mV/div 2現象	TEKTRONIX 2445 または相当品
オーディオアナライザー (ディストーションアナライザー)	・ひずみ率計 ・レベルメータ 80 kHz LPF 30 kHz LPF ・バランス入力型	TEKTRONIX AA501 または相当品

治工具

名称	部品番号	備考
テストディスク YEDS-18	3-702-101-01	
調整用ドライバ	7-700-733-02	

2-2. SV-145基板(メカデッキASSY)の調整

メカデッキASSYを交換した際に必要な"RFレベル、E-Fバランスの確認"はメンテナンスマニュアルパート1を参照して行う。

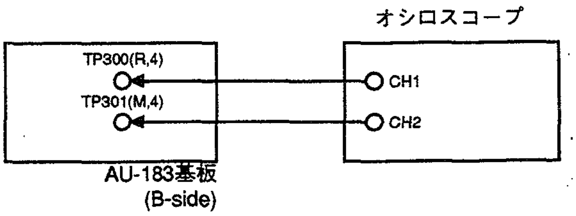
注意： SV-145基板(メカデッキASSY)の調整VR(RV1, RV2)は調整済みのため、再調整の必要はない。したがって、RV1, RV2は絶対に動かさないこと。

2-2-1. FS信号のディレイ量調整

本調整はSV-145基板のデジタル信号処理IC、CXD2525Q(ICC2A)およびDMA030S(ICB3A)を交換したときのみ行う。

使用機器、治工具
オシロスコープ
テストディスク(YEDS-18)

接続



調整時の注意：

下記手順において、確認はメカデッキASSYを本体に取り付けた状態で行う。また、調整は、メカデッキASSYを本体より外した状態で行う。

したがって、確認はローディングパネルを外した状態で行う。

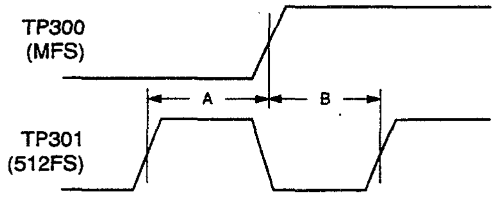
手順

(1) オシロスコープをAU-183基板に下記のように接続する。
オシロスコープ
CH-1 → TP300 (MFS)
CH-2 → TP301 (512FS)

(2) テストディスク（YEDS-18）を挿入して、PLAYキーを押す。（再生モード）

(3) MFS信号（TP300）の立ち上がりと512FS信号（TP301）の立ち上がりの時間差（A, B）が下記規格を満足しているか確認する。

規格　時間差：$A \geqq 12$ ns
　　　　時間差：$B \geqq 12$ ns



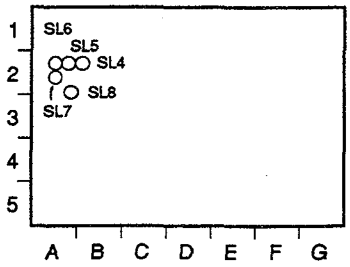
規格を満足しない場合、メカデッキASSYを本体より外して、SV-145基板のスリットランド（SL4 to 8）の接続（半田ブリッジ）を以下のように変更して調整する。

$A < 12$ nsの場合：1つ大きいスリットランドのNo.に接続（半田ブリッジ）を変更する。

例）SL6（半田ブリッジされているスリットランドの半田をとる）
↓
SL7（半田ブリッジする）

$B < 12$ nsの場合：1つ小さいスリットランドのNo.に接続（半田ブリッジ）を変更する。

例）SL6（半田ブリッジされているスリットランドの半田をとる）
↓
SL5（半田ブリッジする）



SV-145基板 (A-side)

(4) +12.5%の可変速再生を行い、手順(3)の確認および調整を行う。

(5) −12.5%の可変速再生を行い、手順(3)の確認および調整を行う。

2-3. AU-183基板調整

AU-183基板を交換した際に必要な下記調整／確認についてはメンテナンスマニュアルパート1を参照して行う。

- 出力レベル調整(RV101, RV102, RV201, RV202の調整)
- 出力波形のバランス調整(RV103, RV203の調整)
- オーディオ特性の確認

2-3-1. オプション基板用出力レベル調整

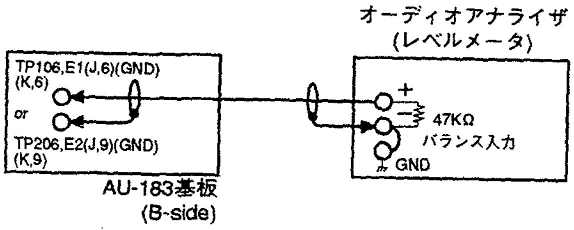
この調整は、AU-183基板の下記部品を交換したときのみ行う。

D/Aコンバータ(ICJ8)、ボルテージレギュレータ(ICJ10)
オペアンプ(ICK7, K11, M7, M11, L7, L10)

使用機器、治工具

オーディオアナライザー(レベルメーター)
テストディスク(YEDS-18)

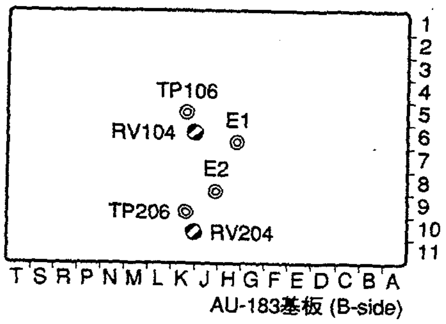
接続


オーディオアナライザ
(レベルメータ)
TP106,E1(J,6)(GND)
(K,6)
or
TP206,E2(J,9)(GND)
(K,9)
AU-183基板
(B-side)
+
−
47KΩ
バランス入力
GND

手順

(1) TP106/AU-183基板にオーディオアナライザ(レベルメーター)を接続する。
(2) テストディスク(YEDS-18)を装着して、2曲目(1 kHz, 0 dB)を再生する。
(3) 調整
規格：TP106/AU-183基板の出力レベル＝+17.8 dBm ± 0.1 dB (0 dBm＝0.775 V)
調整箇所：⊘RV104/AU-183基板
(4) TP206/AU-183基板にオーディオアナライザ(レベルメータ)を接続する。
(5) 調整
規格：TP206/AU-183基板の出力レベル＝+17.8 dBm ± 0.1 dB (0 dBm＝0.775 V)
調整箇所：⊘RV204/AU-183基板

調整箇所


TP106
RV104
E1
E2
TP206
RV204
1
2
3
4
5
6
7
8
9
10
11
T S R P N M L K J H G F E D C B A
AU-183基板 (B-side)

SECTION 1
SERVICE INFORMATION

1-1. REPLACING THE POWER FUSE

A power fuse is mounted on the AC-146 board of CDP-3100. If the fuse has blown, first remedy cause of trouble, and replace the fuse.

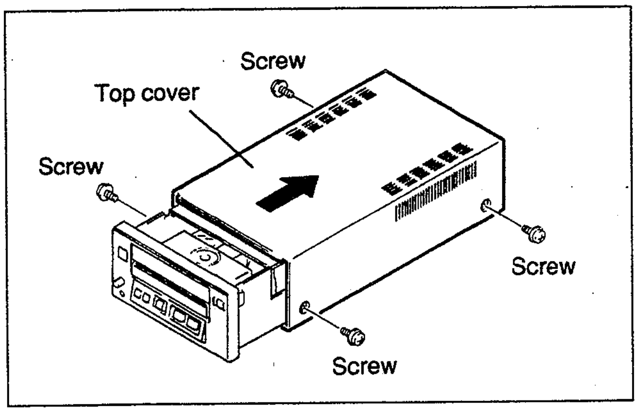
Part Required

- For J
  Fuse 2A, 125V:1 (Part No.:1-532-743-11)
- For UC
  Fuse 2A, 125V:1 (Part No.:1-532-743-11)
- For AE
  Fuse 2A, 250V:1 (Part No.:1-576-228-11)
- For UK
  Fuse 2A, 250V:1 (Part No.:1-576-228-11)

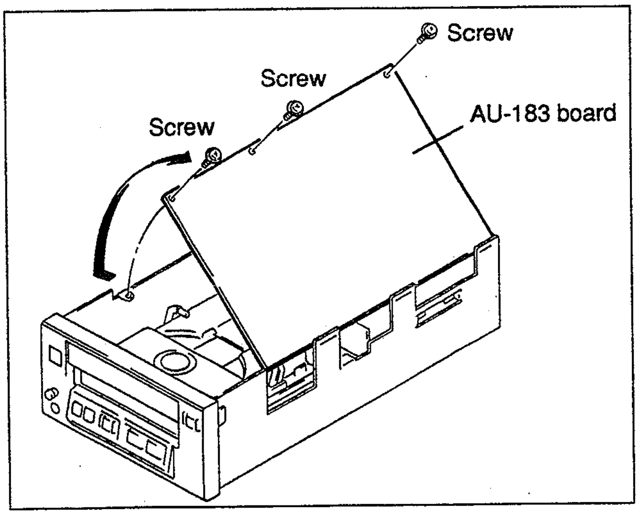
Replacing

NOTE : Turn off the POWER switch and unplug the power cord.

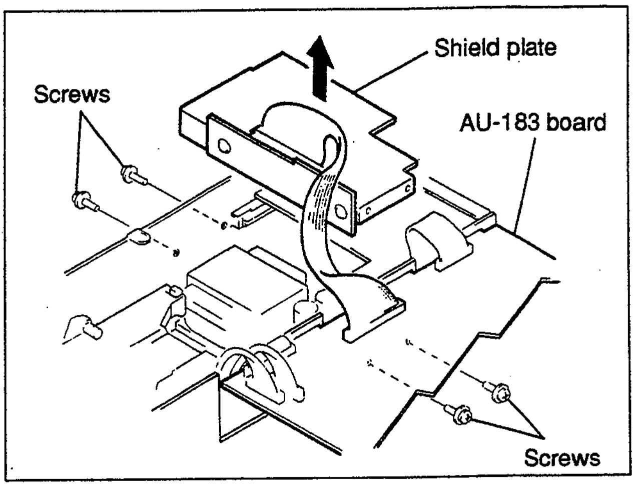
1. Remove the four screws and remove the top cover.


Screw
Top cover
Screw
Screw
Screw

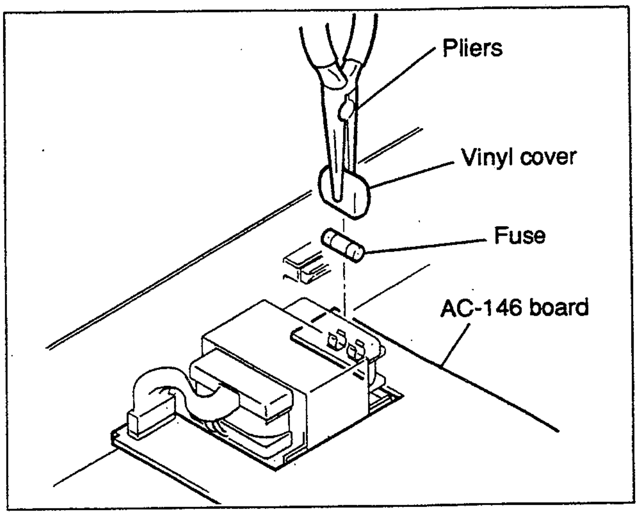
2. Remove the three screws and open the AU-183 board.


Screw
Screw
Screw
AU-183 board

3. Remove the four screws and remove the shield plate.


Shield plate
Screws
AU-183 board
Screws

4. Remove the vinyl cover from the fuse using a long nose pliers, etc.
5. Remove the fuse from its holder and replace it.


Pliers
Vinyl cover
Fuse
AC-146 board

6. Assemble in the reverse order of steps 1 to 4.
   Note : Be sure to place the vinyl cover over the fuse.

1-2. NOTES ON REPAIR PARTS

1-2-1. Notes on Repair Parts

(1) Safety Related Components Warning
Components marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

(2) Standardization of Parts
Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".
This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present".

(3) Change of Parts
Regarding engineering parts changes, refer to Section 7 "CHANGED PARTS"

(4) Stock of Parts
Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(5) Units for Capacitors and Resistors
The following units may be assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.
Capacitors : µF
Resistors : Ω

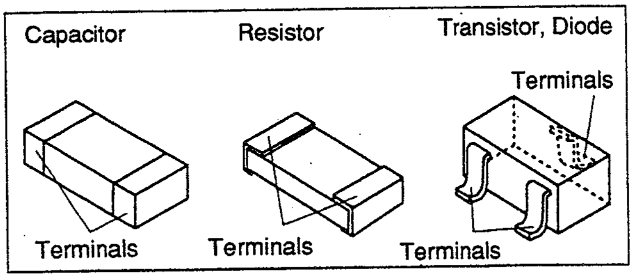
1-2-2. Replacement Procedure for Chip Parts

Required Tools

Soldering iron: 20W If possible, use a soldering iron tip heat-controller at 270 ± 10°C.
Braided wire: SOLDER TAUL or equivalent
Sony part No. 7-641-300-81
Solder: 0.6 mm dia. is recommended.
Tweezers

Soldering Conditions

Soldering iron temperature: 270 ± 10°C.
Soldering time: less than two seconds per a pin.



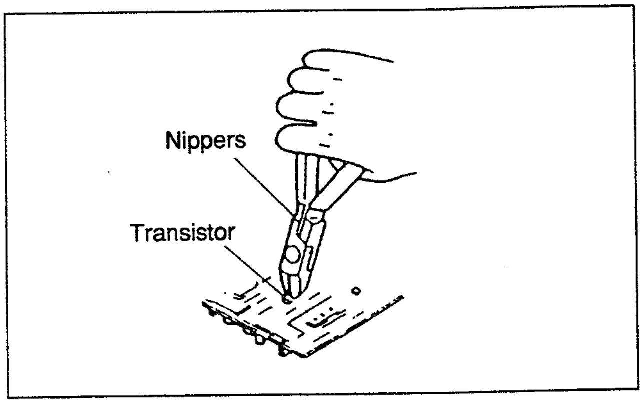
• Resistor and Capacitor Replacement

(1) Place the soldering iron tip onto the chip part and heat it up until the solder is melted. When the solder is melted, slide the chip part aside.
(2) Make sure that there is no pattern peeling, damage and/or bridges around the desoldering positions.
(3) After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
(4) Place new chip part in the desired position and solder both ends.

NOTE: Once a chip part has been removed, never use it again.

• Transistor and Diode Replacement

(1) Cut the terminals of the chip part with a nipper.
(2) Remove the cut leads.
(3) Make sure that there is no pattern peeling, damage and/or bridges around the desoldering positions.
(4) After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
(5) Place new chip part in the desired position and solder the terminals.



• IC Replacement

(1) Using the braided wire, "SOLDER TAUL" Sony Part No. 7-641-300-81, remove the solder around the pins of the IC-chip to be removed.
(2) While heating up the pins, remove the pins one by one using sharp-pointed tweezers.
(3) Make sure that there is no pattern peeling, damage and/or bridges around the desoldering positions.
(4) After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
(5) Place new chip part in the desired position and solder the pins.

1-2-3. Replacing the NOVRAM

When replacing the NOVRAM, the NOVRAM DATA must be written in the new NOVRAM.
The following board has a NOVRAM. After replacing it, carry out the following procedure.
Replace with the NOVRAM specified in the part list.

AU-183 board (ICD4)

Parts Required

- IC CXK1024M Sony Part No.:8-752-348-00

Procedure

(1) Turn on the power switch of CDP-3100.
Note down the channel origin data (Ex. cd2 1) shown on the display first.

(2) Turn off the power switch of CDP-3100 and open the AU-183 board.

(3) Remove ICD4, replace it with the new IC, and mount the AU-183 board.

(4) While pressing the [■ STOP] key of CDP-3100, turn on the power switch and set the channel origin data setting mode.

(5) Using the [|◀◀] and [▶▶|] keys, set the value noted down at step (1). Press the [■ STOP] key and register it.

(6) Turn off the power switch of CDP-3100 and turn it on again. Check that the channel origin data set is shown.

SECTION 2
ELECTRICAL ADJUSTMENTS

This section describes the adjustments that must be carried out when the following parts have been replaced.
For details of the adjustments/checks to be carried out when the mechanism deck assembly or AU-183 board has been replaced, refer to Maintenance Manual Part 1.

2-1. PREPARATIONS

Equipment and Tools

Equipment

Name	Specification (Minimum)	Equipment
Oscilloscope	Frequency range: DC-150 MHz Precision: 5 mV/div, 2 phenomena	TEKTRONIX 2445 or equivalent
Audio analyzer (Distortion analyzer)	• Distortion meter • Level meter 80 kHz LPF 30 kHz LPF • Balanced input	TEKTRONIX AA501 or equivalent

Tool

Name	Part No.	Remarks
Test disc YEDS-18	3-702-101-01	
Adjusting screwdriver	7-700-733-02	

2-2. SV-145 BOARD (MECHANISM DECK ASSEMBLY) ADJUSTMENT

For details of "RF Level and E-F Balance Check" to be performed when the mechanism deck assembly has been replaced, refer to Maintenance Manual Part 1.

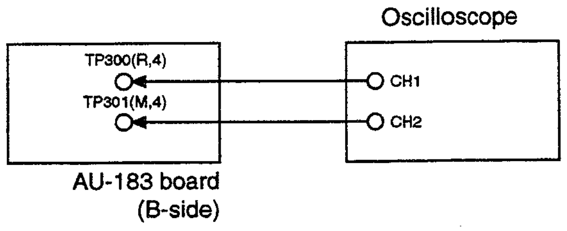
Note: Because the adjusting VRs (RV1 and RV2) of the SV-145 board (mechanism deck assembly) have already been adjusted, they do not need to be adjusted again. Therefore, never move them.

2-2-1. FS Signal Delay Amount Adjustment

Perform this adjustment only when the digital signal processing IC-CXD2525Q (ICC2A) and DMA030S (ICB3A) of the SV-145 board has been replaced.

Equipment and Tool
Oscilloscope
Test disc (YEDS-18)

Connection



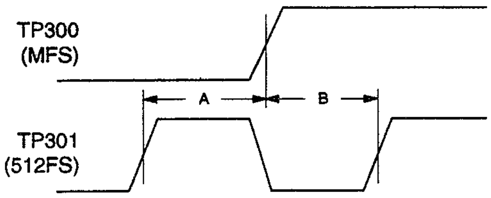
Note on Adjustment:
Perform the check in the following procedure with the mechanism deck assembly attached to the main unit. Perform the adjustment with the mechanism deck assembly removed.
Therefore, carry out the check with the loading panel removed.

Procedure

(1) Connect the oscilloscope to the AU-183 board as shown below.
Oscilloscope
CH-1 → TP300 (MFS)
CH-2 → TP301 (512FS)

(2) Load the test disc (YEDS-18) and press the PLAY key. (Playback mode)

(3) Check that the time difference (A, B) between the rising edge of the MFS signal (TP300) and that of the 512FS signal (TP301) satisfies the following specification.
Specification Time difference: A ≧ 12 ns
Time difference: B ≧ 12 ns



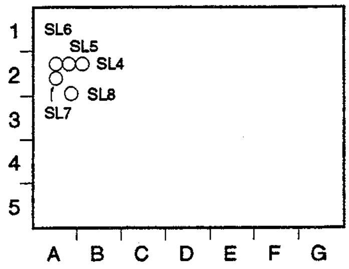
If the specification is not satisfied, remove the mechanism deck assembly from the main unit, change the connection (soldering bridge) of the slit lands (SL4 to SL8) of the SV-145 board as follows and adjust.

If A < 12 ns: Change the connection to a slit land of the next higher number (soldering bridge).

Example) SL6 (Unsolder the solder bridge of the slit land)
↓
SL7 (Solder the bridge)

If B < 12 ns: Change the connection to a slit land of the next smaller number (soldering bridge).

Example) SL6 (Unsolder the solder bridge of the slit land)
↓
SL5 (Solder the bridge)



SV-145 board (A-side)

(4) Perform the +12.5% variable speed playback and carry out the check and adjustment in step (3).

(5) Perform the –12.5% variable speed playback and carry out the check and adjustment in step (3).

2-3. AU-183 BOARD ADJUSTMENT

For details of the adjustments and check below to be performed when the AU-183 board has been replaced, refer to Maintenance Manual Part 1.

- Output level adjustment (RV101, RV102, RV201, RV202 adjustments)
- Output waveform balance adjustment (RV103, RV203 adjustments)
- Audio characteristic check

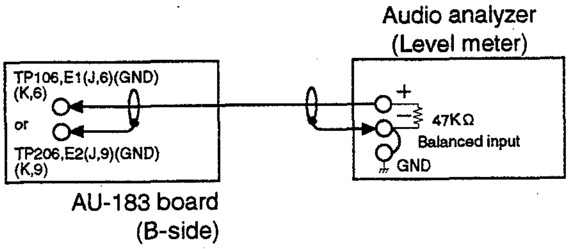
2-3-1. Output Level Adjustment for Option Board

Perform this adjustment only when the following parts of the AU-183 board have been replaced.
D/A converter (ICJ8), voltage regulator (ICJ10),
operational amplifier (ICK7, K11, M7, M11, L7, L10)

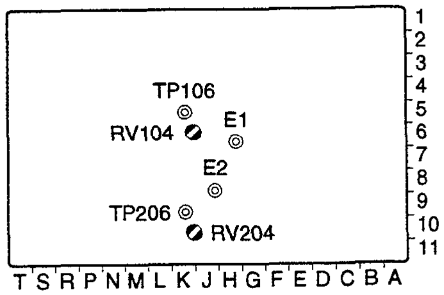
Equipment and Tool

Audio analyzer (Level meter)
Test disc (YEDS-18)

Connection


Audio analyzer
(Level meter)
TP106,E1(J,6)(GND)
(K,6)
or
TP206,E2(J,9)(GND)
(K,9)
+
−
47KΩ
Balanced input
GND
AU-183 board
(B-side)

Adjustment Location


TP106
E1
RV104
E2
TP206
RV204
1
2
3
4
5
6
7
8
9
10
11
T S R P N M L K J H G F E D C B A

AU-183 board (B-side)

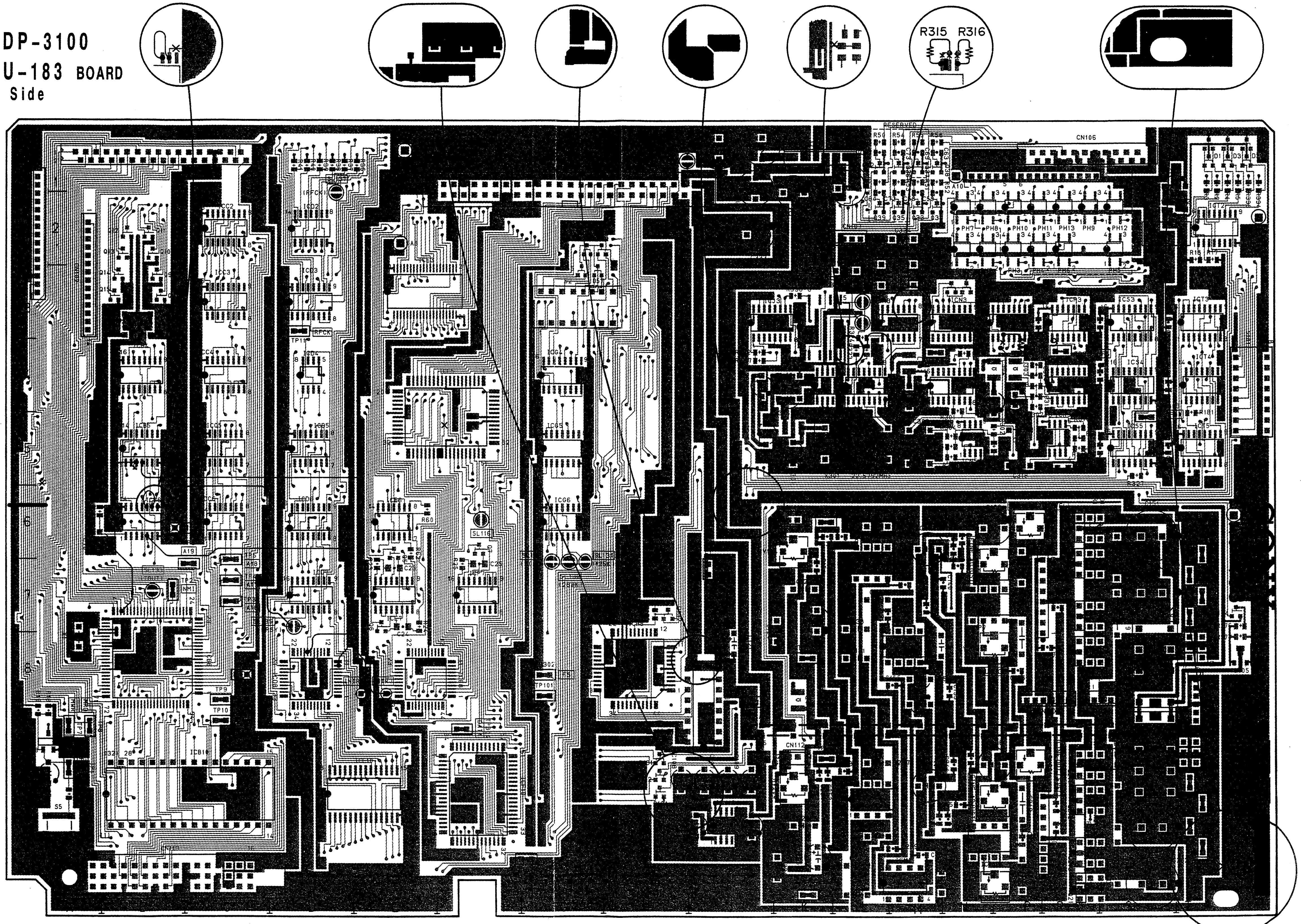
Procedure

(1) Connect the audio analyzer (level meter) to TP106 of the AU-183 board.
(2) Load the test disc (YEDS-18) and play back the second track (1 kHz, 0 dB).
(3) Adjustment
Specification: Output level of TP106/AU-183 board
= +17.8 dBm ± 0.1 dB
(0 dBm = 0.775 V)
Adjustment: ⊘RV104/AU-183 board
(4) Connect the audio analyzer (level meter) to TP206 of the AU-183 board.
(5) Adjustment
Specification: Output level of TP206/AU-183 board
= +17.8 dBm ± 0.1 dB
(0 dBm = 0.775 V)
Adjustment: ⊘RV204/AU-183 board

SECTION 3
BOARD LAYOUTS

	Board	Function	Page
	CDP-3100		
A	AC-146	Power Supply	3-5
	AU-183	Audio System Control and Clock	3-2
C	CN-812	Output Connector	3-5
D	DSP-52	Display and Function Keys	3-5
J	JK-43	Headphone Amplifier	3-5
M	MB-508	Mother Board For Optional I/F Board	3-5
S	SV-145	Servo Control	3-4
	CDS-3100		
H	HA-17	Headphone Amplifier	3-6
J	JK-40	Headphone Jack VR	3-6
K	KC-30	System Control	3-6
	KY-252	Key Matrix	3-6
L	LED-148	Disc Data Indication	3-6
	DABK-3101		
M	MEM-54	Memory Board	3-7

CDP-3100
AU-183 BOARD
A Side



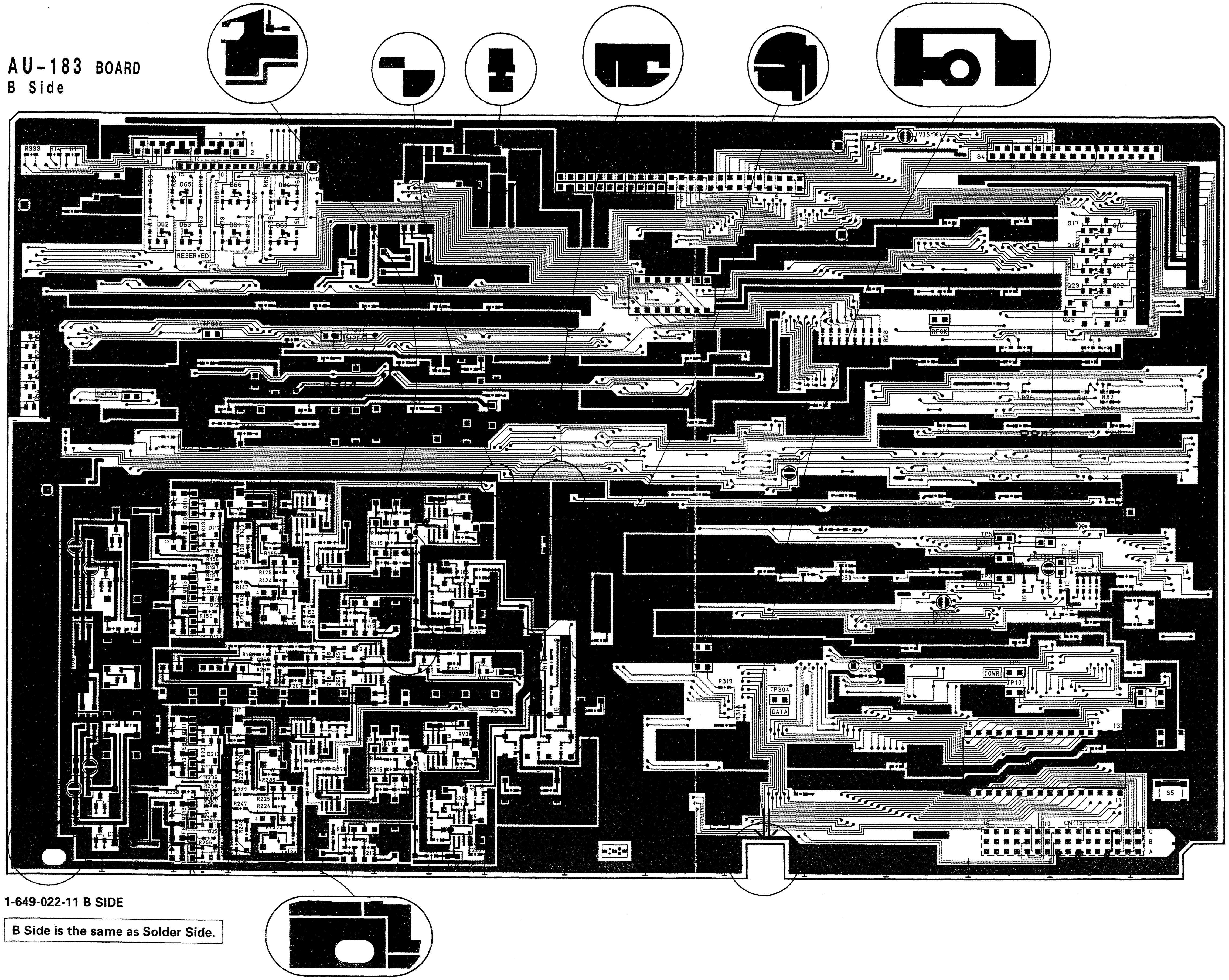
1-649-022-11 A SIDE

A Side is the same as Component Side.

AU-183(1-649-022-11)

CN101	A-2	ICE5	F-4	Q11	B-2
CN102	A-3	ICE6	E-6	Q12	B-2
CN103	B-1	ICE7	E-7	Q13	B-2
CN104	G-1	ICE8	F-8	Q14	B-3
CN105	K-1	ICE10	E-9	Q15	B-3
CN106	R-1			Q33	M-2
CN107	L-2	ICF7	F-7	Q34	M-2
CN108	T-9	ICF10	G-10	Q38	N-1
CN109	R-9			Q101	H-10
CN110	R-9	ICG4	G-4	Q102	H-10
CN111	K-6	ICG5	G-5	Q104	T-7
CN112	K-9	ICG6	G-6	Q105	T-8
CN113	B-10			Q111	R-6
		ICH8	H-7	Q112	R-7
D1	T-1			Q113	R-8
D2	T-1	ICJ3	K-3	Q114	R-8
D3	T-1	ICJ5	J-5	Q211	R-10
D4	T-1	ICJ8	J-9	Q212	R-10
D55	G-3	ICJ10	J-10	Q213	R-11
D56	G-2			Q214	R-11
D57	G-3	ICK3	K-3		
D58	G-2	ICK4	K-4	RV101	P-6
D113	R-6			RV102	P-7
D114	R-7	ICL4	L-4	RV103	N-8
D123	R-7	ICL7	L-6	RV104	J-6
D124	R-8	ICL10	L-10	RV201	R-9
D131	H-9			RV202	P-10
D132	H-7	ICM3	L-3	RV203	P-11
D213	R-9	ICM7	M-7	RV204	K-10
D214	R-10	ICM11	M-11		
D223	R-11			RY101	S-8
D224	R-11	ICN3	N-3	RY201	S-9
D301	P-5	ICN4	M-4		
D302	N-3	ICN5	N-5	S2	G-3
D303	N-3	ICP3	P-3	S5	A-10
D304	T-1	ICP7	N-8	S101	T-4
D305	T-1	ICP10	N-11		
				TP1	A-9
E1	J-6	ICR3	R-3	TP2	C-7
E2	J-8	ICR4	R-4	TP3	C-7
E3	S-9	ICR5	R-5	TP4	C-7
E4	R-5	ICR7	R-7	TP5	C-6
E5	G-11	ICR10	R-11	TP6	C-6
E6	B-6			TP7	A-9
E7	C-8	ICS3	S-3	TP8	A-9
		ICS4	S-4	TP9	C-8
FL101	T-8	ICS5	S-5	TP10	C-9
FL102	T-8			TP11	D-4
FL201	T-9	ICT2	T-2	TP101	G-8
FL202	T-9	ICT3	T-3	TP102	T-7
		ICT4	T-4	TP103	T-7
ICA9	A-9	ICT5	T-5	TP104	T-7
				TP105	T-7
ICB4	B-4	L1	K-1	TP106	K-6
ICB5	B-5	L2	J-2	TP107	K-8
ICB6	B-6	L3	L-2	TP202	T-10
ICB8	C-8	L4	K-8	TP203	T-10
ICB10	C-9	L301	K-5	TP204	T-10
		L302	M-4	TP205	T-10
ICC2	C-2	L303	P-4	TP206	K-9
ICC3	C-3	L304	P-4	TP207	K-11
ICC4	C-4			TP300	R-4
ICC5	C-5	PH1	N-3	TP301	N-4
ICC6	C-6	PH2	N-3	TP302	G-8
		PH7	N-2	TP303	S-4
ICD2	D-2			TP304	F-9
ICD3	D-3	PS1	S-2		
ICD4	D-4			T301	M-2
ICD5	D-5	Q5	E-7		
ICD6	D-6	Q6	E-7	X1	A-8
ICD7	D-7	Q7	F-6	X301	L-5
ICD8	D-8	Q8	B-3		
		Q9	B-3		
ICE3	E-2	Q10	B-2		

AU-183 BOARD
B Side


R333
RESERVED
S2
R28
RFCK
R319
TP304
DATA
IOWR
S5
CN113

1-649-022-11 B SIDE

B Side is the same as Solder Side.

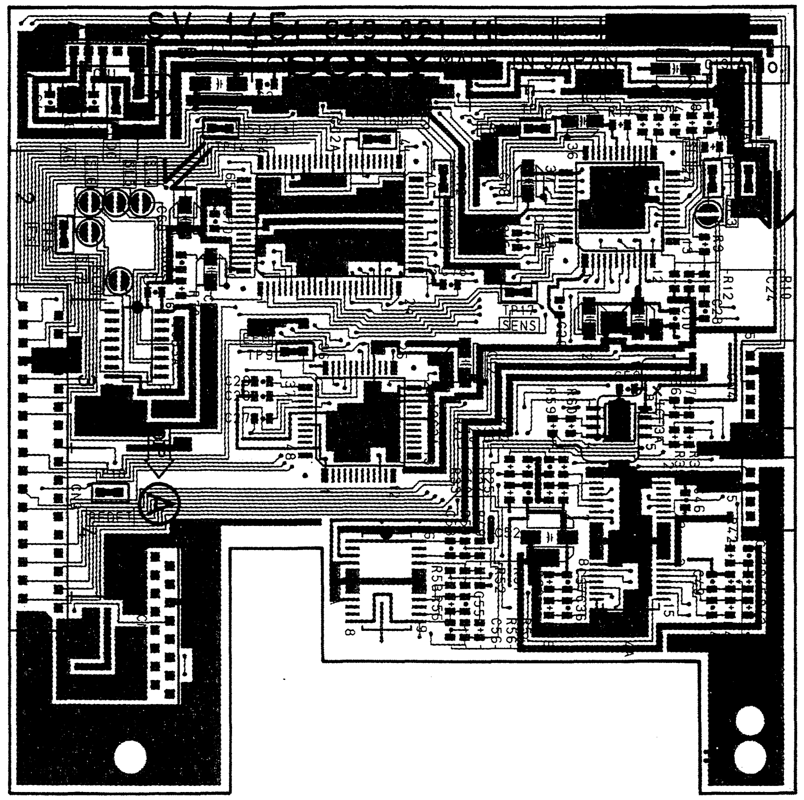
AU-183(1-649-022-11)

D51	*T-4
D52	*T-4
D53	*T-4
D54	*T-5
D60	*P-2
D64	*N-2
D111	*R-6
D112	*R-6
D115	*S-7
D116	*S-8
D121	*R-8
D122	*R-8
D125	*S-7
D211	*R-9
D212	*R-10
D215	*S-10
D221	*R-11
D222	*R-11
D225	*S-11
ICK6	*K-7
ICK7	*K-7
ICK10	*K-10
ICK11	*K-10
ICM8	*M-8
ICN6	*N-6
ICN7	*M-7
ICN9	*N-9
ICN10	*M-10
Q16	*B-2
Q17	*B-2
Q18	*B-2
Q19	*B-2
Q20	*B-3
Q21	*B-3
Q22	*B-3
Q23	*B-3
Q24	*B-3
Q25	*B-3
Q106	*K-9
Q107	*L-8
Q115	*N-8
Q116	*N-8
Q215	*N-8
Q216	*N-8

*:SOLDERING SIDE

SV-145 BOARD
A Side

SV-145(1-649-021-11)	
CN1	A-1
CN2	B-5
CN3	A-4
CN4	G-3
CN5	G-4
E1	A-1
E2	A-1
ICB3A	B-3
ICC2A	C-1
ICC3A	D-3
ICD4A	C-4
ICF2A	E-2
ICF3A	F-3
ICF4A	F-5
L1	B-1
TP9	C-3
TP10	G-2
TP11	G-2
TP12	D-2
TP13	E-1
TP14	B-1
TP15	A-2
TP16	D-1
TP17	E-3



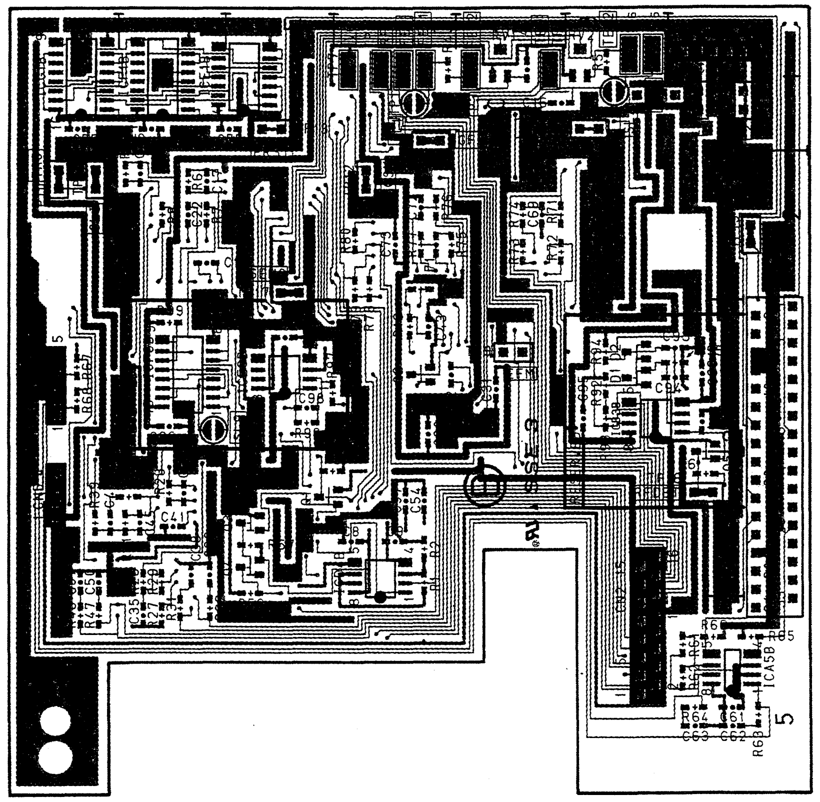
1-649-021-11 A SIDE

A Side is the same as Component Side.

SV-145 BOARD
B Side

SV-145(1-649-021-11)	
ICA5B	*A-5
ICD4B	*D-4
ICE1B	*F-1
ICF1B	*F-1
ICG1B	*G-1
Q1	*E-4
Q2	*D-3
Q3	*E-4
Q4	*E-4
RV1	*C-1
RV2	*B-1
R1	*D-4
TP1	*D-1
TP2	*D-1
TP3	*C-1
TP4	*C-1
TP5	*B-1
TP6	*B-1
TP7	*D-1
TP8	*D-1

* :SOLDERING SIDE

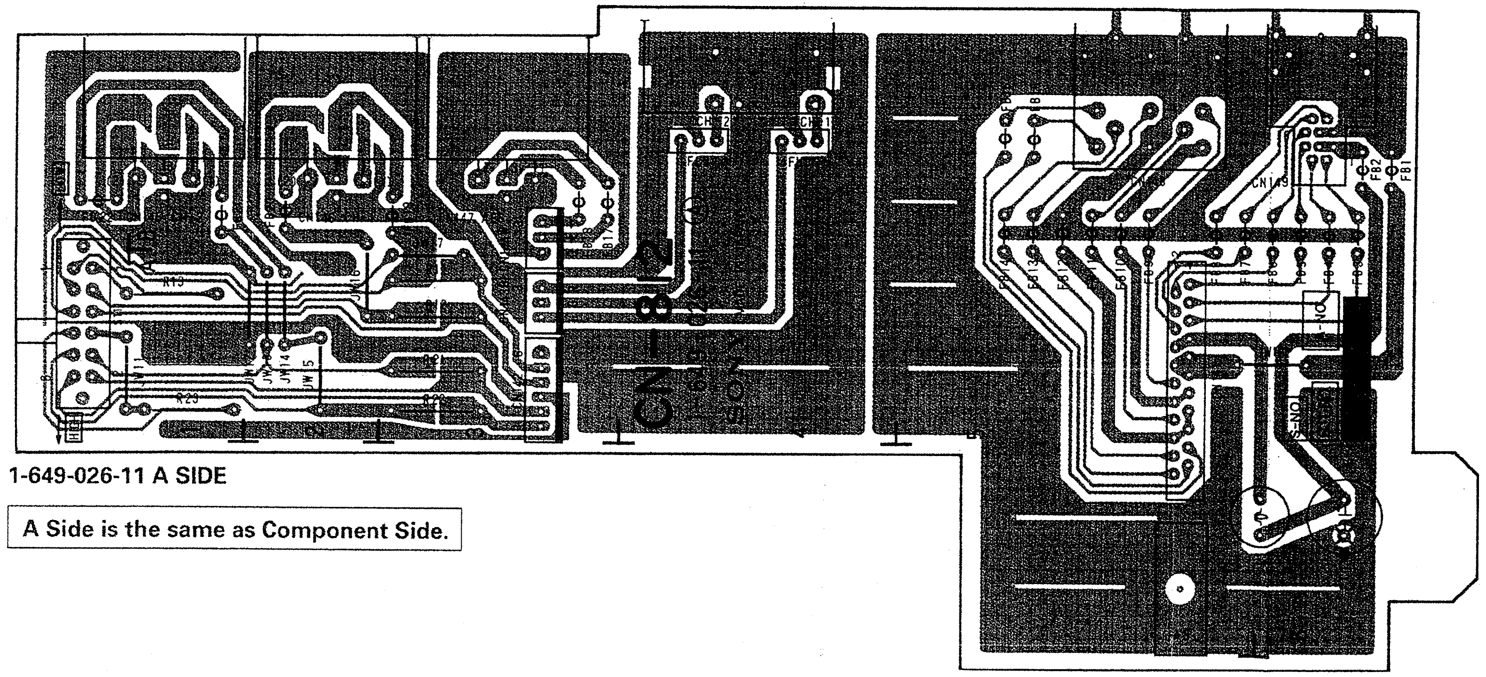


1-649-021-11 B SIDE

B Side is the same as Solder Side.

CN-812,DSP-52 BOARD MB-508,JK-43 BOARD
CDP-3100 CDP-3100

CN-812 BOARD



CN-812
SONY
CN149
FB1
FB2
R13
R23
JW11
JW14
JW15

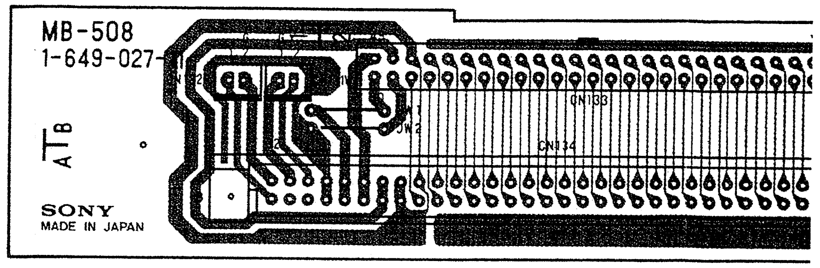
1-649-026-11 A SIDE

A Side is the same as Component Side.

CN-812(1-649-026-11)

CN141	A-5	JW16	A-2
CN142	A-3	JW17	B-3
CN143	A-3	JW18	A-6
CN144	B-3		
CN145	B-1	J1	B-4
CN146	B-2		
CN147	B-3	L1	A-6
CN148	B-5		
CN149	B-6	S111	A-1
FB1	B-6		
FB2	B-6		
FB3	A-6		
FB4	A-6		
FB5	A-6		
FB6	A-6		
FB7	A-5		
FB8	A-5		
FB9	A-5		
FB10	A-5		
FB11	A-5		
FB12	A-5		
FB13	A-5		
FB14	A-5		
FB15	B-5		
FB16	B-5		
FB17	B-3		
FB18	B-3		
FB19	B-3		
FB20	B-2		
FB21	B-1		
FB22	B-1		
FL1	B-4		
FL2	B-4		
JW11	A-1		
JW12	A-2		
JW13	A-2		
JW14	A-2		
JW15	A-2		

MB-508 BOARD

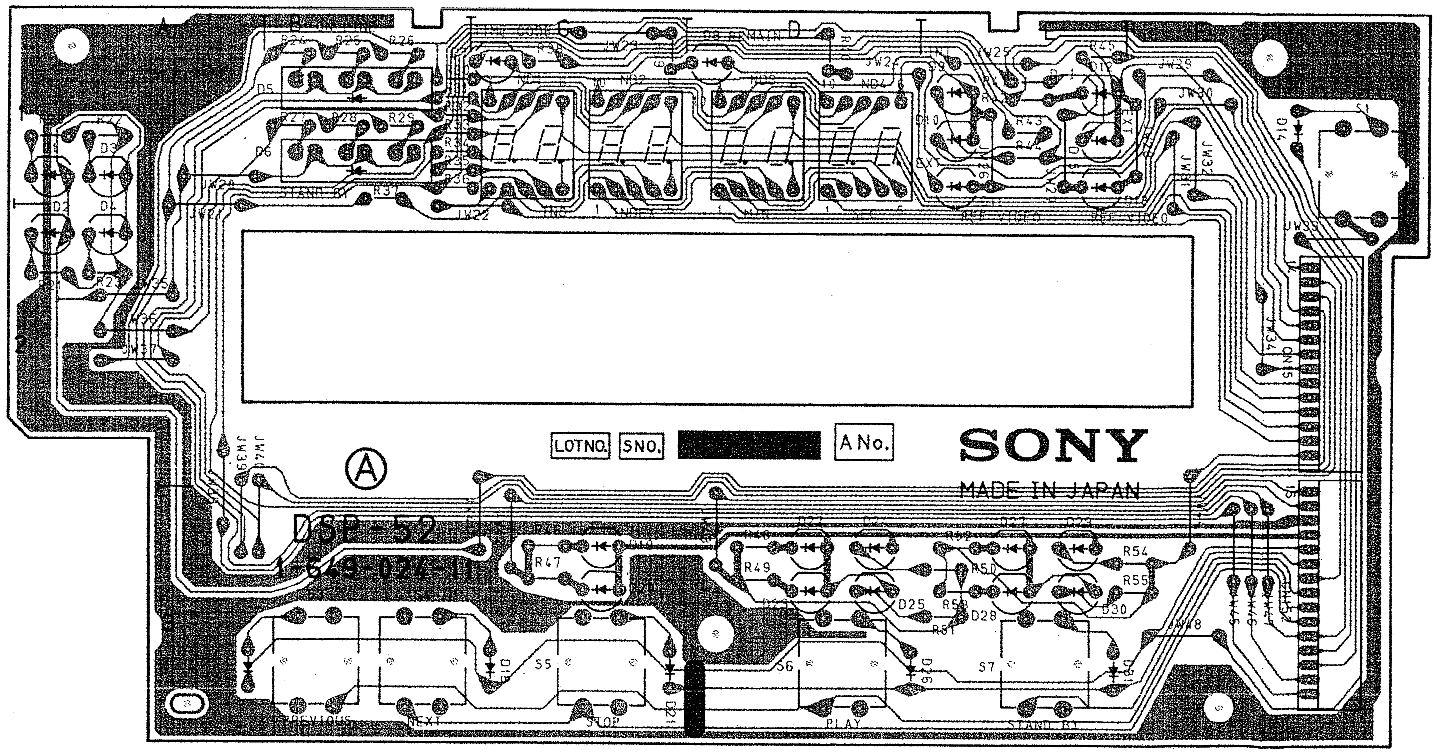


MB-508
1-649-027-
A
B
SONY
MADE IN JAPAN
CN133
CN134

1-649-027-11 A SIDE

A Side is the same as Component Side.

DSP-52 BOARD



A
B
C
D
E
1
2
3
D5
D6
R24
D25
R26
R29
R2
D2
D4
JW35
JW36
JW37
JW22
ND1
ND2
ND3
ND4
D14
S1
CN151
R34
R43
JW39
JW40
LOTNO.
SNO.
A No.
SONY
MADE IN JAPAN
DSP-52
1-649-024-11
R47
R49
R50
R54
R55
D25
R51
D26
D28
D30
JW48
S5
S6
S7
PREVIOUS
NEXT
STOP
PLAY
STAND BY

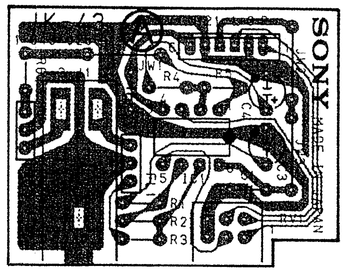
1-649-024-11 A SIDE

A Side is the same as Component Side.

DSP-52(1-649-024-11)

CN151	F-2	JW32	F-1
CN152	F-3	JW33	F-2
		JW34	F-2
D1	A-1	JW35	A-2
D2	A-2	JW36	A-2
D3	A-1	JW37	A-2
D4	A-2	JW38	A-2
D5	A-1	JW39	A-2
D6	A-1	JW40	A-2
D7	B-1	JW41	B-3
D8	D-1	JW42	C-3
D9	E-1	JW43	D-3
D10	E-1	JW44	F-3
D11	E-1	JW45	F-3
D12	E-1	JW46	F-3
D13	E-1	JW47	F-3
D14	F-1	JW48	F-3
D15	E-1		
D17	A-3	ND1	C-1
D18	C-3	ND2	C-1
D19	C-3	ND3	D-1
D20	C-3	ND4	D-1
D21	C-3		
D22	D-3	S1	F-1
D23	D-3	S3	B-3
D24	D-3	S4	B-3
D25	D-3	S5	C-3
D26	E-3	S6	D-3
D27	E-3	S7	E-3
D28	E-3		
D29	E-3		
D30	E-3		
D31	F-3		
JW20	A-1		
JW21	A-2		
JW22	B-2		
JW23	C-1		
JW24	D-1		
JW25	E-1		
JW26	E-1		
JW27	E-1		
JW28	F-1		
JW29	F-1		
JW30	F-1		
JW31	F-1		

JK-43 BOARD



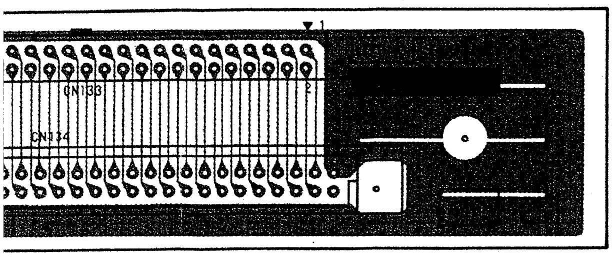
JK-43
SONY
MADE IN JAPAN
R4
R5
R2
R3

1-649-025-11 A SIDE

A Side is the same as Component Side.

JK-43(1-649-025-11)

CN121	B-6
FL1	B-6
FL2	B-6
IC1	B-6
JW1	B-6
JW2	B-6
JW3	B-6
J1	B-6
RV1	B-6

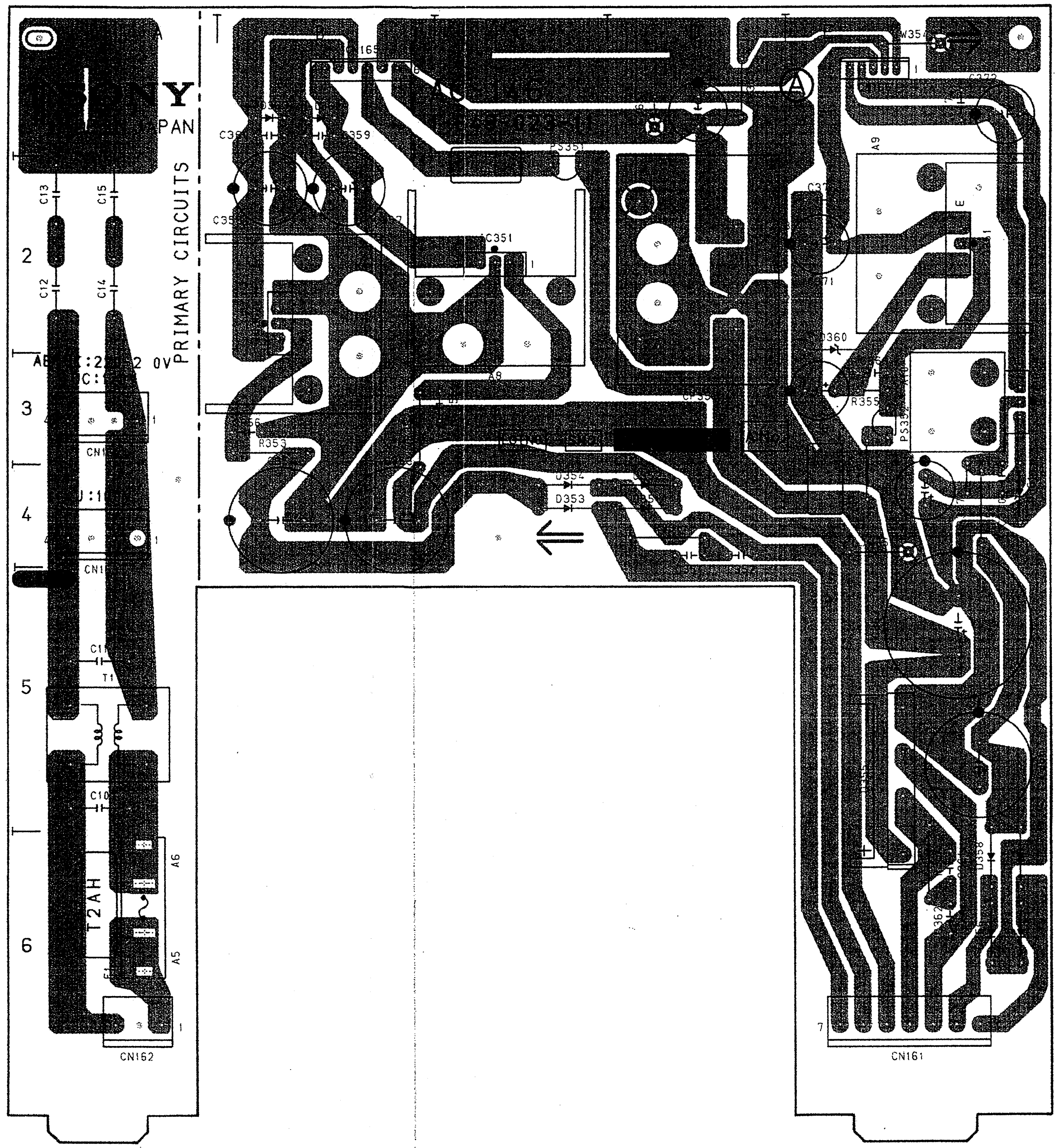

CN133
CN134
1

MB-508(1-649-027-11)

CN131	B-2
CN132	B-1
CN133	B-2
CN134	B-2
JW1	B-2
JW2	B-2

5-11)

AC-146 BOARD


2
3
4
5
6
C13
C15
C12
C14
PRIMARY CIRCUITS
T1
T2AH
A6
A5
CN162
CN161
IC351
D353
D354
R353
R355
PS351
C359
A
1
7

1-649-023-11 A SIDE

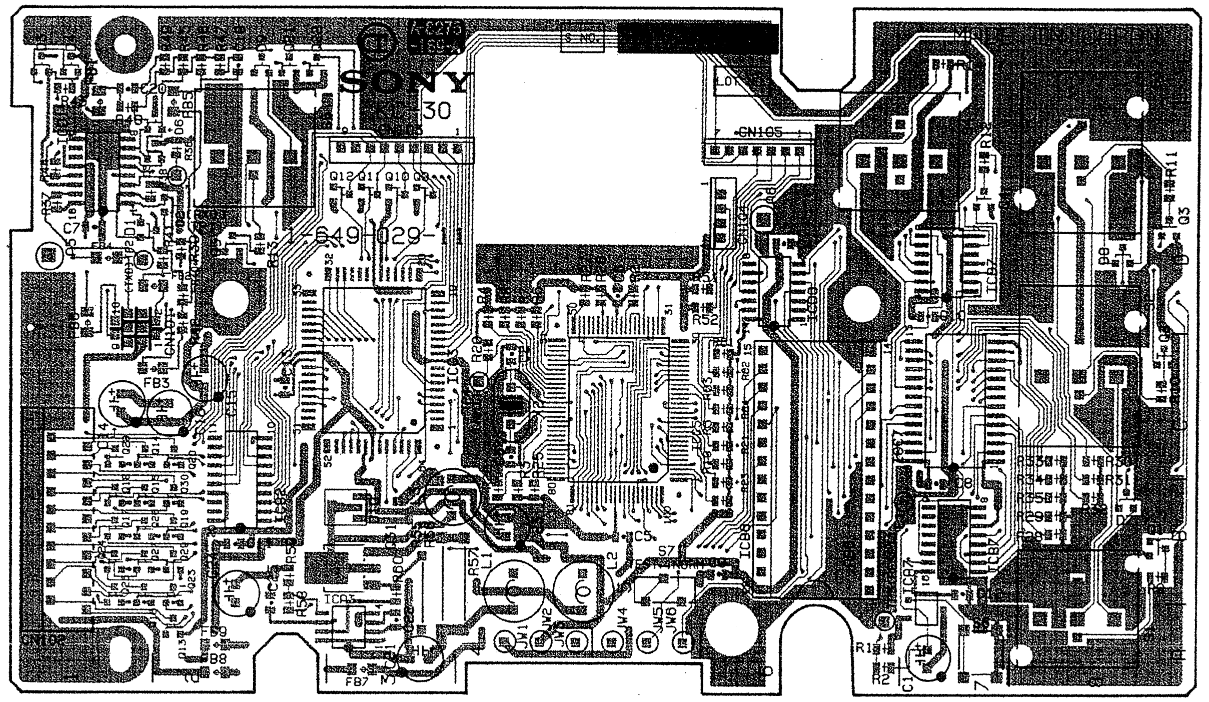
A Side is the same as Component Side.

AC-146(1-649-023-11)

CN161	E-6
CN162	A-6
CN163	A-5
CN164	A-3
CN165	B-1
CN166	E-1
CP351	D-3
D351	D-4
D352	D-4
D353	C-4
D354	C-4
D355	E-5
D356	E-6
D357	E-6
D358	E-6
D359	E-6
D360	E-2
D361	E-4
D362	B-1
D363	B-1
IC351	C-2
IC352	B-2
JW351	E-4
JW352	E-4
JW353	D-1
JW354	E-1
PS351	C-1
PS352	E-3
Q351	E-2
Q352	E-3
T1	A-5

CDS-3100

KC-30 BOARD
A Side



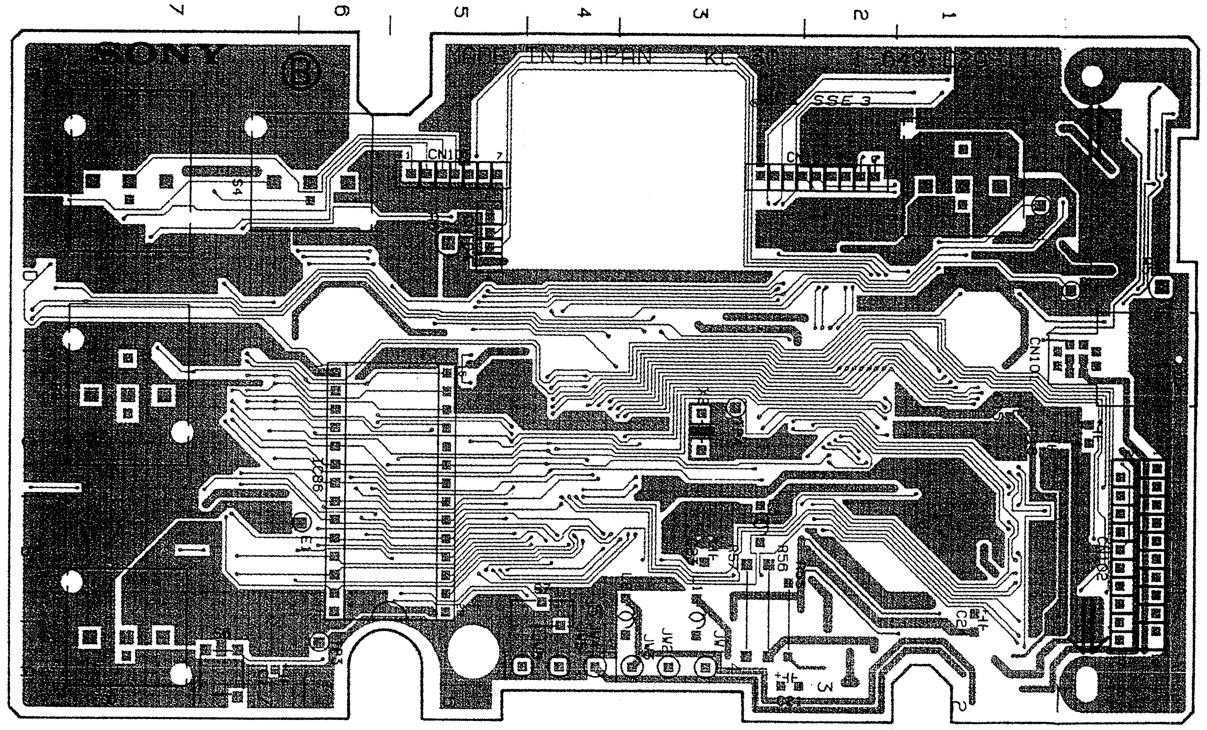
1-649-029-11 A SIDE

A Side is the same as Component Side.

KC-30(1-649-029-11)

CN102	A-2
CN103	D-3
CN104	D-6
CN105	D-6
D1	D-1
D2	D-2
D3	E-1
D4	E-1
D5	D-1
D6	D-2
D7	B-8
D8	D-8
D9	E-2
D10	B-3
E1	B-6
FB1	E-1
FB2	D-2
FB3	C-2
FB4	D-1
FB5	D-2
FB6	D-1
FB7	A-3
FB8	A-2
FB9	A-2
ICA3	B-3
ICA7	B-7
ICB2	B-2
ICB6	B-6
ICB7	B-7
ICC3	C-3
ICC5	C-5
ICC7	C-6
ICD1	D-1
ICD6	D-6
ICD7	D-7
JW1	A-4
JW2	A-4
JW3	A-4
JW4	A-5
JW5	A-5
JW6	A-5
L1	B-4
L2	B-5
L3	B-3
Q1	B-8
Q2	C-8
Q3	D-8
Q4	D-7
Q5	D-2
Q9	D-3
Q10	D-3
Q11	D-3
Q12	D-3
Q13	A-2
Q14	C-1
Q15	B-1
Q16	A-1
Q17	B-1
Q18	B-1
Q19	B-2
Q20	C-2
Q21	E-2
Q22	E-2
Q23	B-2
Q24	B-1
Q25	B-1
Q26	B-1
Q27	B-1
Q28	C-1
Q29	B-2
Q30	B-2
Q31	B-3
S1	A-8
S2	D-8
S3	E-8
S4	D-7
S5	D-2
S6	D-7
S7	B-5
TP1	D-2
TP2	D-2
TP3	B-6
TP4	C-4
X2	C-4

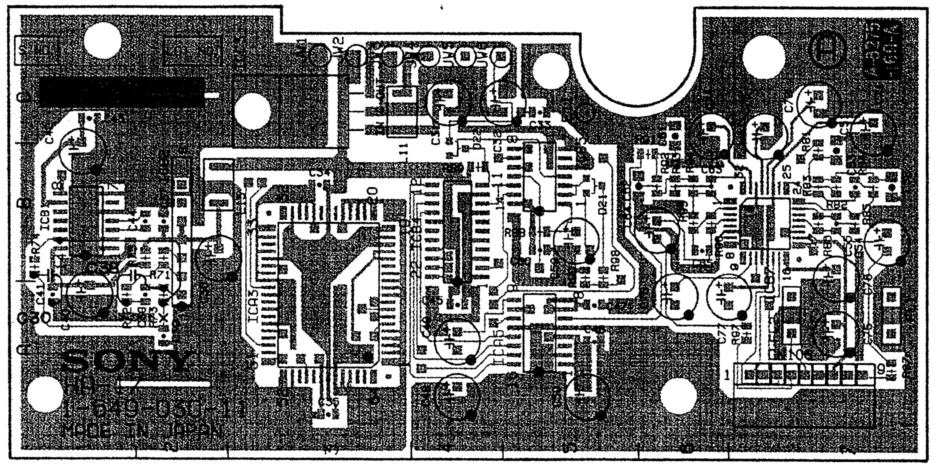
KC-30 BOARD
B Side



1-649-029-11 B SIDE

B Side is the same as Solder Side.

HA-17 BOARD
A Side



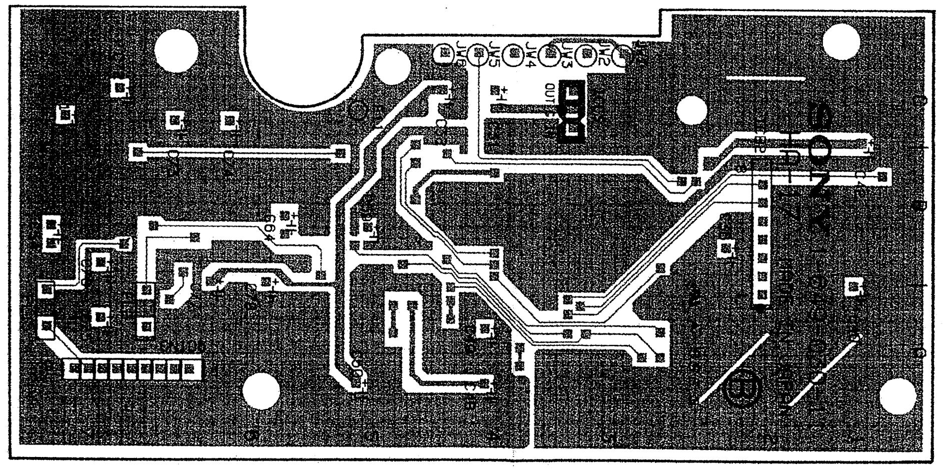
1-649-030-11 A SIDE

A Side is the same as Component Side.

HA-17(1-649-031-11)

CN106	A-7
D21	B-5
D22	C-4
E11	C-5
FL1	A-7
FL2	A-7
ICA3	A-3
ICA5	A-4
ICB1	B-1
ICB2	B-2
ICB4	B-4
ICB5	B-5
ICB7	A-7
ICC3	C-3
L11	B-3
L13	B-3

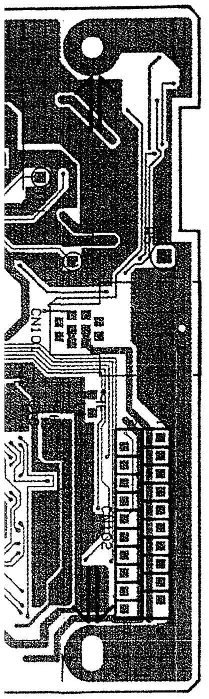
HA-17 BOARD
B Side



1-649-030-11 B SIDE

B Side is the same as Solder Side.

KY-252,LED-148 BOARD JK-40 BOARD
CDS-3100 CDS-3100

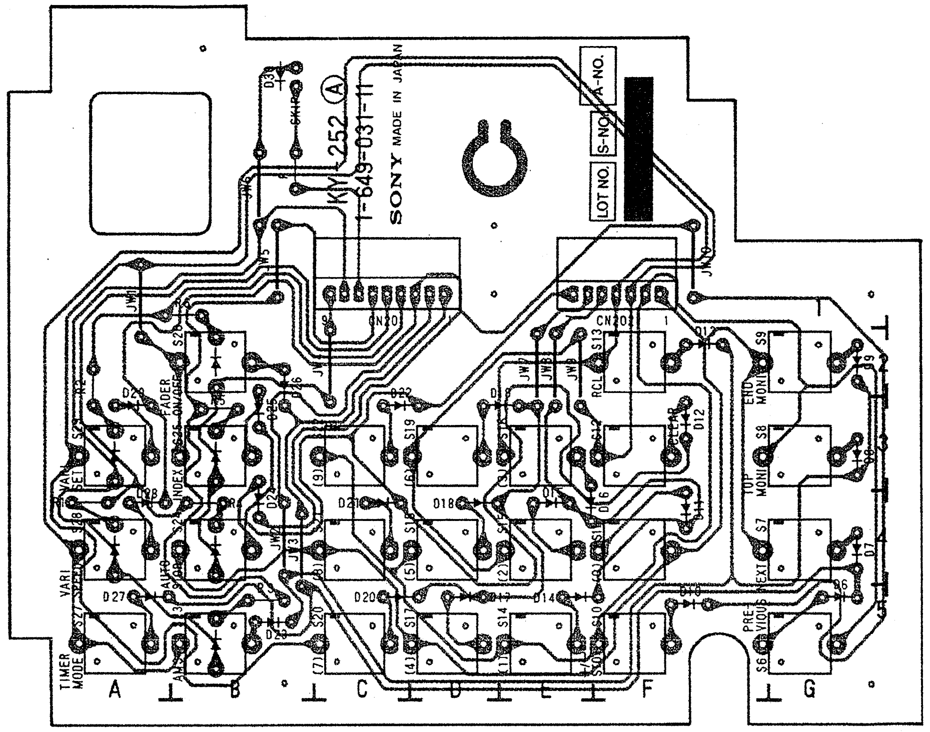


KC-30(1-649-029-11)

CN101	*C-2

*:SOLDERING SIDE

KY-252 BOARD


KY-252 Ⓐ
1-649-031-11
SONY MADE IN JAPAN
LOT NO.
S-NO.
A-NO.
CN201
CN202
A
B
C
D
E
F
G

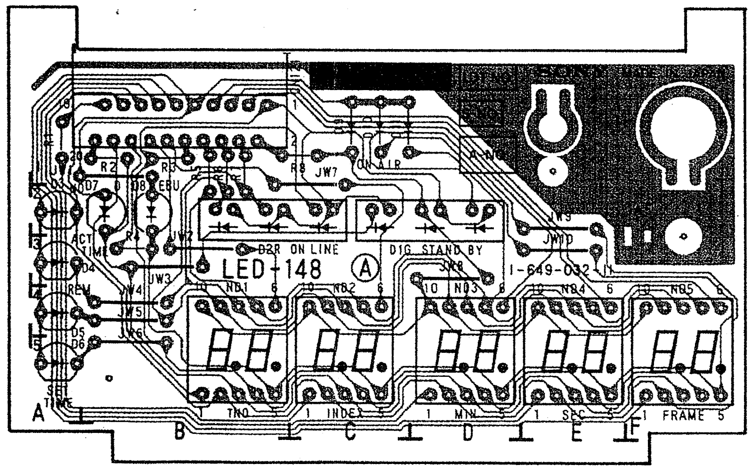
1-649-031-11 A SIDE

A Side is the same as Component Side.

KY-252(1-649-031-11)

CN201	C-1
CN202	F-1
D6	G-5
D7	G-4
D8	G-3
D9	G-2
D10	F-5
D11	F-4
D12	F-3
D13	F-2
D14	E-5
D15	E-4
D16	F-4
D17	D-5
D18	D-4
D19	E-2
D20	C-5
D21	C-4
D22	C-2
D23	B-5
D24	B-4
D25	B-3
D26	B-2
D27	A-5
D28	A-4
D29	A-2
D30	B-1
JW1	A-1
JW2	B-4
JW3	B-4
JW4	C-2
JW5	B-1
JW6	B-1
JW7	E-2
JW8	E-2
JW9	E-2
JW10	F-1
S6	F-5
S7	F-4
S8	F-3
S9	F-2
S10	F-5
S11	F-4
S12	F-3
S13	F-2
S14	E-5
S15	E-4
S16	E-3
S17	D-5
S18	D-4
S19	D-3
S20	C-5
S21	C-4
S22	C-3
S23	B-5
S24	B-4
S25	B-3
S26	B-2
S27	A-5
S28	A-4
S29	A-3

LED-148 BOARD


LED-148 Ⓐ
1-649-032-11
ON LINE
STAND BY
TNO
INDEX
MIN
SEC
FRAME
A
B
C
D
E
F

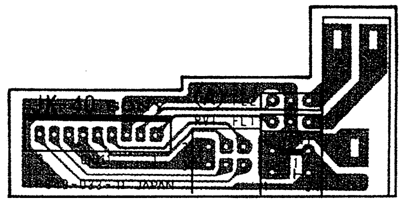
1-649-032-11 A SIDE

A Side is the same as Component Side.

LED-148(1-649-032-11)

CN121	C-1
D1	C-2
D2	B-3
D3	A-1
D4	B-3
D5	A-4
D6	A-5
D7	B-2
D8	B-2
D9	C-1
D10	C-1
D11	C-1
JW1	A-1
JW2	B-3
JW3	B-3
JW4	B-4
JW5	B-4
JW6	B-4
JW7	C-1
JW8	D-3
JW9	E-2
JW10	E-3
ND1	B-4
ND2	C-4
ND3	D-4
ND4	E-4
ND5	F-4

JK-40 BOARD



1-649-033-11 A SIDE

A Side is the same as Component Side.

JK-40(1-649-033-11)

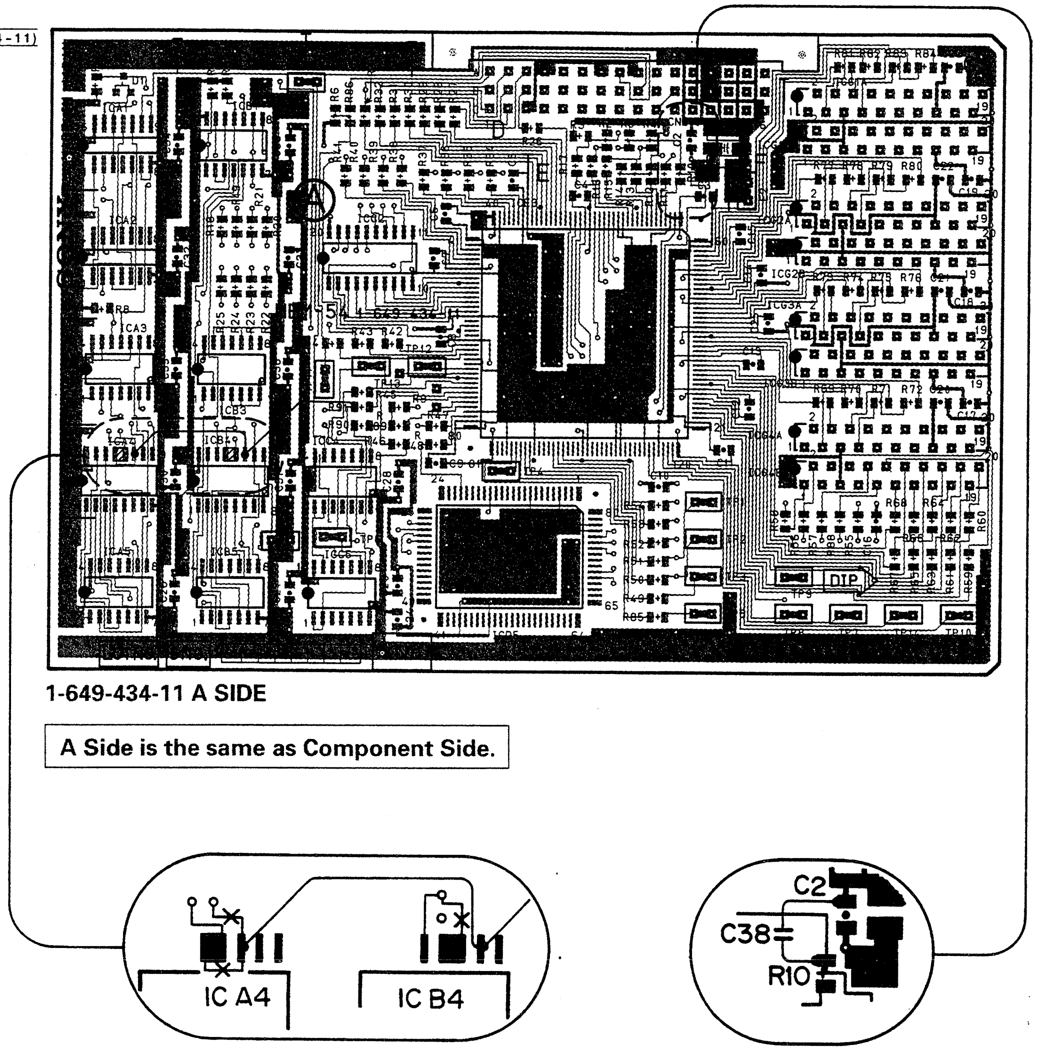
CN111	A-1
FL1	A-1
FL2	A-1
J1	A-1
RV1	A-1
VDR1	A-1

DABK-3101

MEM-54 BOARD
A Side

ADA-20(1-649-434-11)

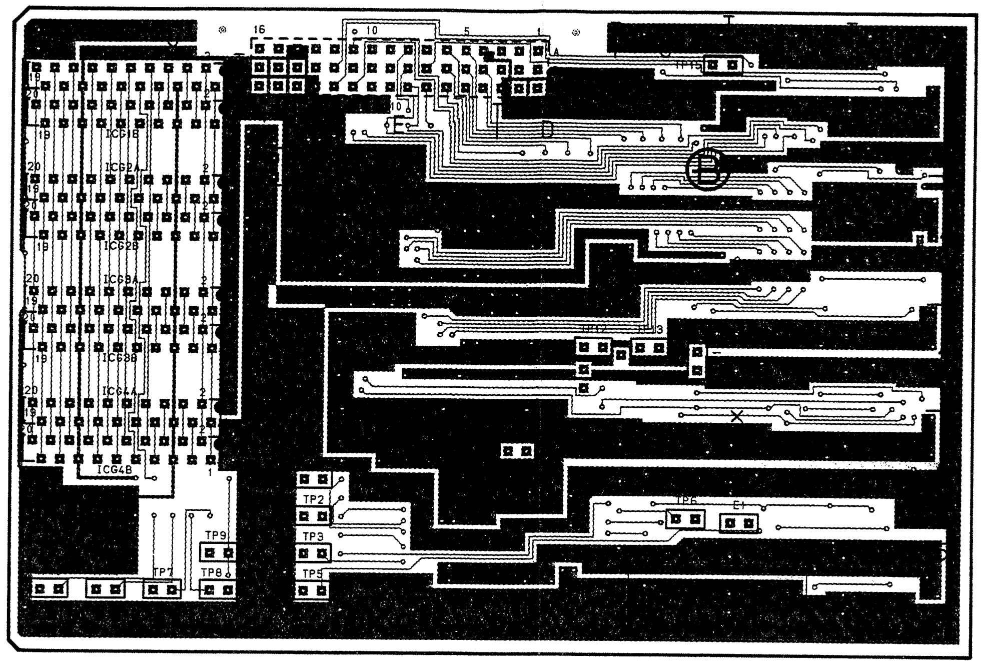
CN210	E-1
D1	A-1
E1	B-5
E2	F-2
ICA1	A-1
ICA2	A-2
ICA3	A-3
ICA4	A-4
ICA5	A-5
ICB1	B-1
ICB3	B-3
ICB4	B-4
ICB5	B-5
ICC2	C-2
ICC4	C-4
ICC5	C-5
ICD5	.D-5
ICE3	D-2
ICG1A	G-1
ICG1B	F-2
ICG2A	F-2
ICG2B	G-2
ICG3A	G-2
ICG3B	F-3
ICG4A	F-4
ICG4B	F-4
TP1	F-4
TP2	F-5
TP3	F-5
TP4	E-4
TP5	F-5
TP6	C-5
TP7	G-5
TP8	G-5
TP9	G-5
TP10	G-5
TP11	C-3
TP12	D-3
TP13	C-3
TP14	G-5
TP15	B-1


A
ICA2
ICA3
ICB3
ICC2
DIP
TP1
TP2
TP3
TP5
R60
IC A4
IC B4
C2
C38
R10

1-649-434-11 A SIDE

A Side is the same as Component Side.

MEM-54 BOARD
B Side

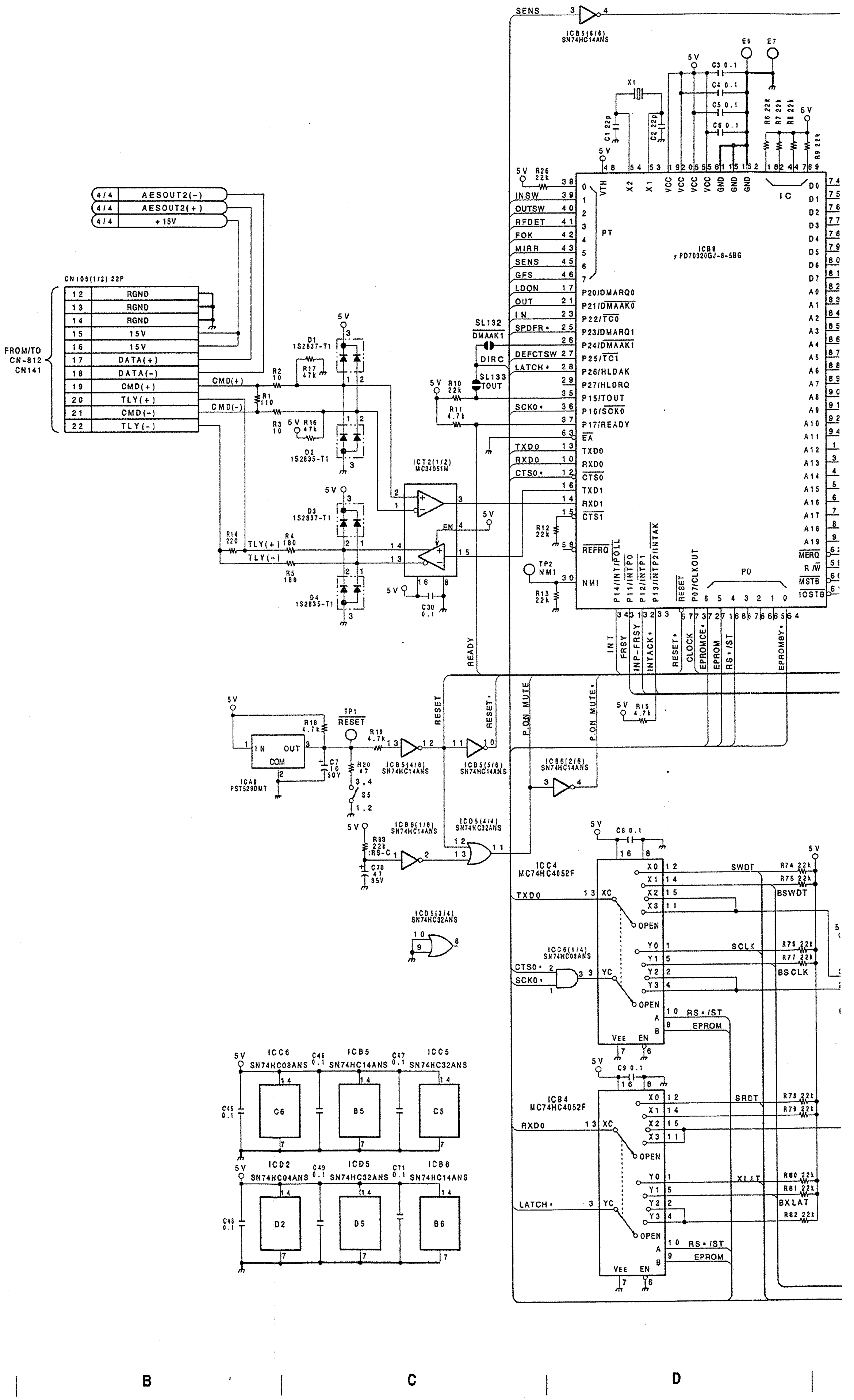

B
ICG1B
ICG2A
ICG2B
ICG3A
ICG3B
ICG4A
ICG4B
TP2
TP3
TP5
TP6
TP7
TP8
TP9
E1

1-649-434-11 B SIDE

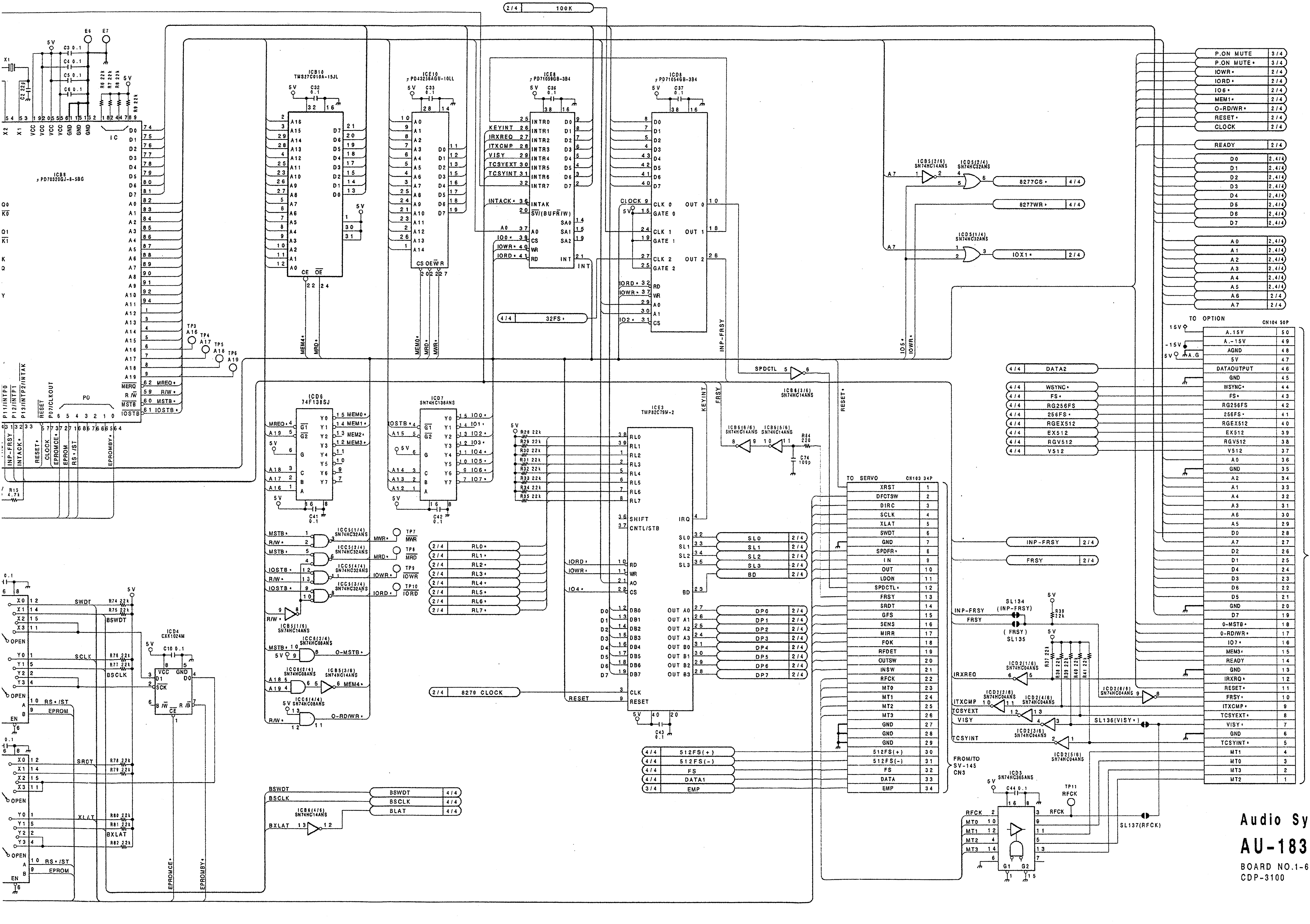
B Side is the same as Solder Side.

SECTION 4
SCHEMATIC DIAGRAMS

	Board	Function	Page
	CDP-3100		
A	AC-146	Power Supply	4-7
	AU-183	Audio System Control and Clock	4-1
C	CN-812	Output Connector	4-7
D	DSP-52	Display and Function Keys	4-6
J	JK-43	Headphone Amplifier	4-7
M	MB-508	Mother Board For Optional I/F Board	4-7
S	SV-145	Servo Control	4-5
	Frame wiring		4-7
	CDS-3100		
H	HA-17	Headphone Amplifier	4-9
J	JK-40	Headphone Jack VR	4-9
K	KC-30	System Control	4-8
	KY-252	Key Matrix	4-9
L	LED-148	Disc Data Indication	4-9
	Frame wiring		4-9
	DABK-3101		
M	MEM-54	Memory Board	4-10



SENS
ICB5(6/6) SN74HC14ANS
AESOUT2(-)
AESOUT2(+)
+15V
CN105(1/2) 22P
RGND
15V
DATA(+)
DATA(-)
CMD(+)
TLY(+)
CMD(-)
TLY(-)
FROM/TO CN-812 CN141
D1 1S2837-T1
D2 1S2835-T1
D3 1S2837-T1
D4 1S2835-T1
IC72(1/2) MC34051M
SL132 DMAAK1
DIRC
SL133 TOUT
ICB8 μPD70322GJ-8-5BG
INSW
OUTSW
RFDET
FOK
MIRR
GFS
LDON
OUT
IN
SPDFR*
DEFCTSW
LATCH*
SCKO*
TXD0
RXD0
CTS0*
REFRQ
NMI
TP2 NMI
READY
RESET
TP1 RESET
ICA9 PST529DMT
IN OUT COM
ICB5(4/6) SN74HC14ANS
ICB5(5/6) SN74HC14ANS
ICB6(1/6) SN74HC14ANS
ICD5(4/4) SN74HC32ANS
ICD5(3/4) SN74HC32ANS
ICB6(2/6) SN74HC14ANS
P.ON MUTE
P.ON MUTE*
ICC4 MC74HC4052F
ICB4 MC74HC4052F
ICC6(1/4) SN74HC08ANS
SWDT
BSWDT
SCLK
BSCLK
SRDT
XLAT
BXLAT
RS*/ST
EPROM
OPEN
INT
FRSY
INP-FRSY
INTACK*
RESET*
CLOCK
EPROMCE*
RS*/ST
EPROMBY*
ICC6 SN74HC08ANS
ICB5 SN74HC14ANS
ICC5 SN74HC32ANS
ICD2 SN74HC04ANS
ICD5 SN74HC32ANS
ICB6 SN74HC14ANS
5V
A
B
C
D

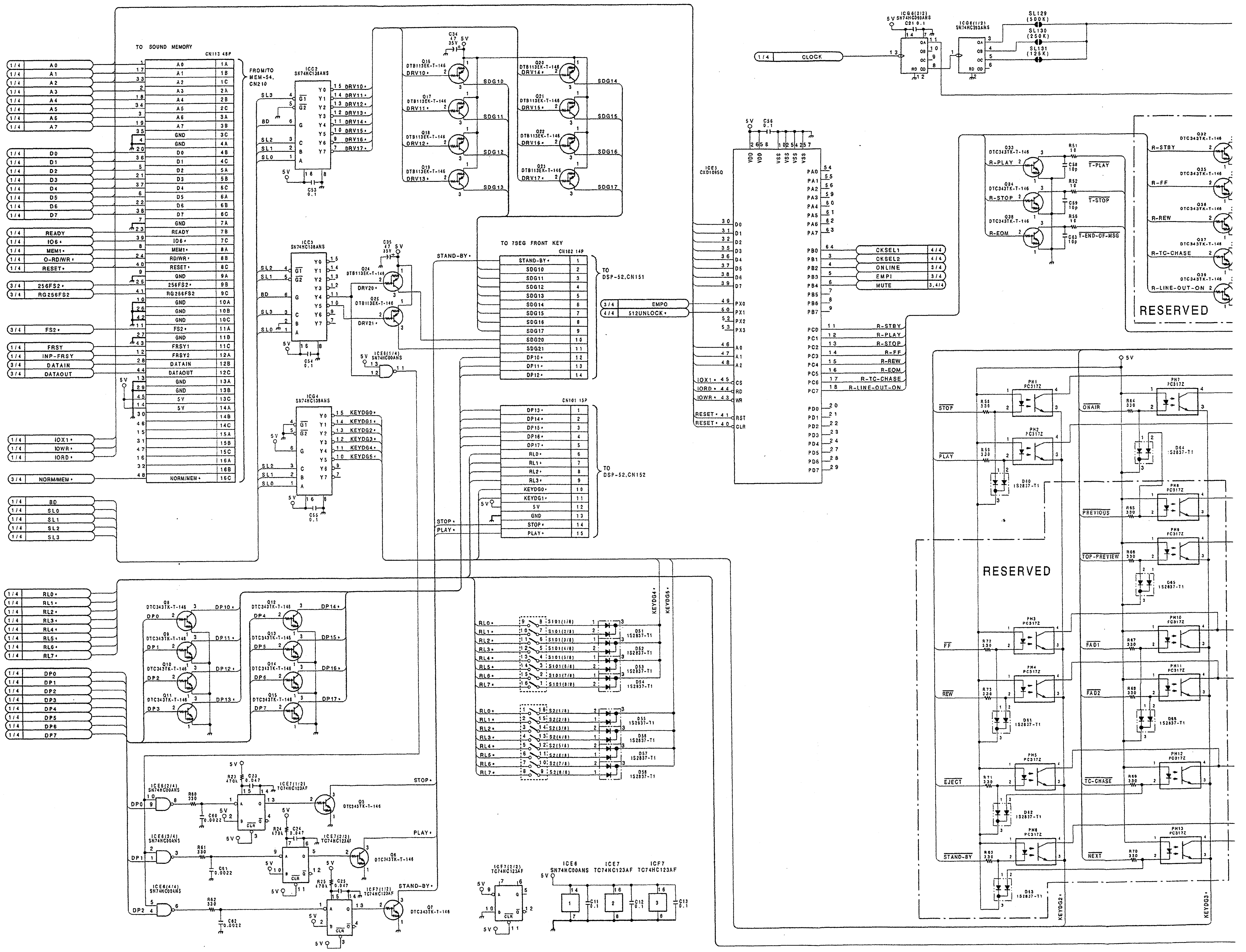

IC6 μPD70320GJ-8-5BG
IC10 TMS27C010A-15JL
IC10 μPD43256AGU-10LL
IC8 μPD71059GB-3B4
IC8 μPD71054GB-3B4
IC5(2/6) SN74HC14ANS
IC5(2/4) SN74HC32ANS
IC5(1/4) SN74HC32ANS
IC6 74F138SJ
IC7 SN74HC138ANS
IC3 TMP82C79M-2
IC4 CXK1024M
IC3 SN74HC365ANS
8277CS*
8277WR*
IOX1*
100K
32FS*
8279 CLOCK
SPDCTL
INP-FRSY
FRSY
KEYINT
RESET*
MEM0* MEM1* MEM2* MEM3*
IO0* IO1* IO2* IO3* IO4* IO5* IO6* IO7*
MWR MRD IOWR IORD
TP7 TP8 TP9 TP10 TP11
RL0* RL1* RL2* RL3* RL4* RL5* RL6* RL7*
SL0 SL1 SL2 SL3 BD
DP0 DP1 DP2 DP3 DP4 DP5 DP6 DP7
512FS(+) 512FS(-) FS DATA1 EMP
BSWDT BSCLK BLAT
O-MSTB* O-RD/WR*
P.ON MUTE
P.ON MUTE*
IOWR*
IORD*
IO6*
MEM1*
O-RD/WR*
RESET*
CLOCK
READY
D0 D1 D2 D3 D4 D5 D6 D7
A0 A1 A2 A3 A4 A5 A6 A7
TO OPTION CN104 50P
DATA2 WSYNC* FS* RG256FS 256FS* RGEX512 EX512 RGV512 V512
FROM/TO MB-508 CN133
TO SERVO CN103 34P
XRST DFCTSW DIRC SCLK XLAT SWDT GND SPDFR* IN OUT LDON SPDCTL* FRSY SRDT GFS SENS MIRR FOK RFDET OUTSW INSW RFCK MT0 MT1 MT2 MT3 GND GND GND 512FS(+) 512FS(-) FS DATA EMP
FROM/TO SV-145 CN3
SL134 (INP-FRSY)
(FRSY) SL135
SL136(VISY*)
SL137(RFCK)
IRXREQ ITXCMP TCSYEXT VISY TCSYINT
IC2 SN74HC04ANS
RFCK MT0 MT1 MT2 MT3
1 2 3 4 5
D E F G H I J K L

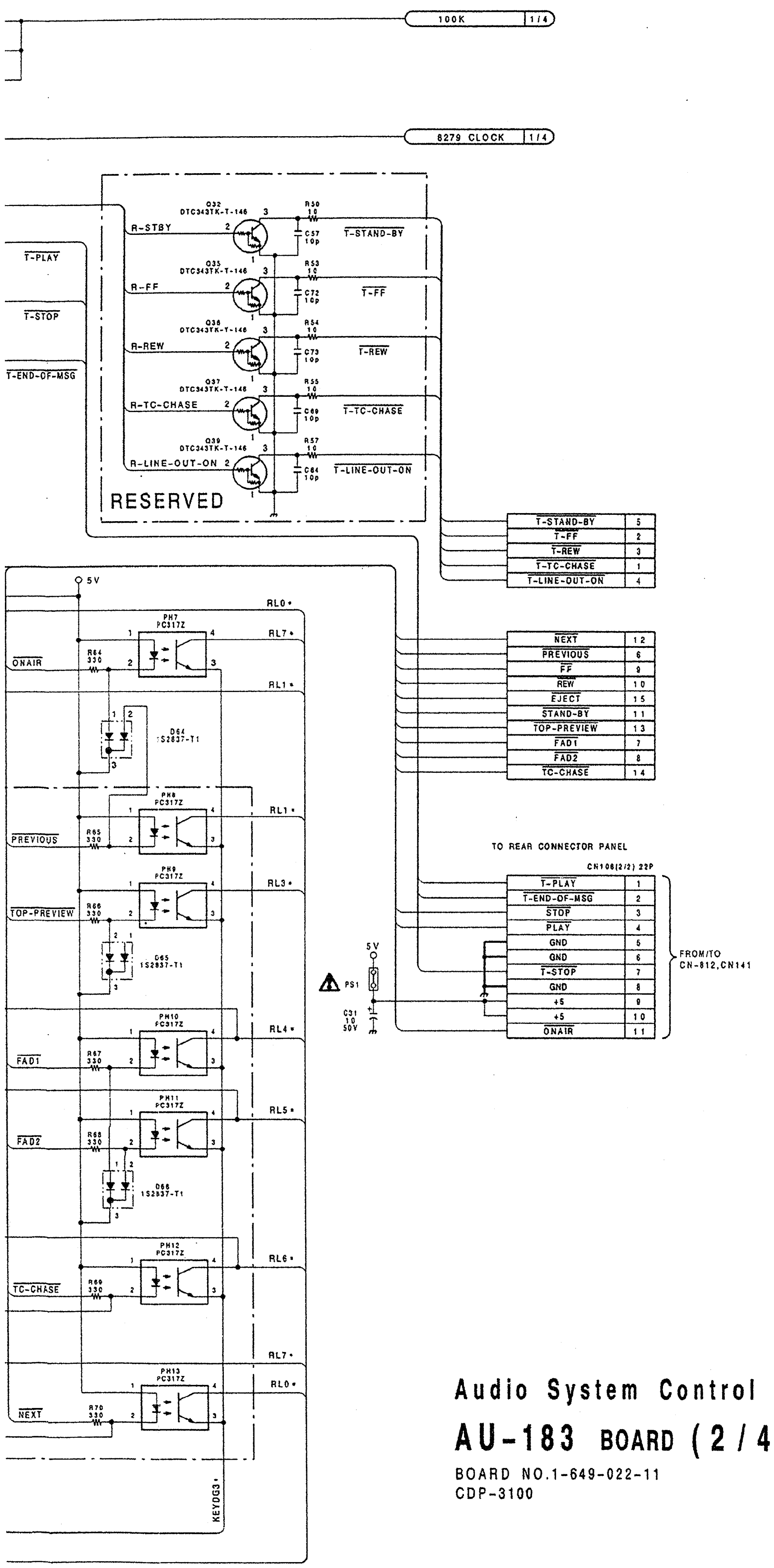
Audio System Control and Clock

AU-183 BOARD (1/4)

BOARD NO.1-649-022-11
CDP-3100

AU-183 BOARD(2/4) CDP-3100 AU-183 BOARD(2/4) CDP-3100


TO SOUND MEMORY
CN113 48P
FROM/TO MEM-54, CN210
ICC2 SN74HC138ANS
ICC3 SN74HC138ANS
ICC4 SN74HC138ANS
TO 7SEG FRONT KEY
CN102 14P
TO DSP-52,CN151
CN101 15P
TO DSP-52,CN152
ICE3 CXD1095Q
CLOCK
CKSEL1
CKSEL2
ONLINE
EMPI
MUTE
EMPO
512UNLOCK
R-STBY
R-PLAY
R-STOP
R-FF
R-REW
R-EOM
R-TC-CHASE
R-LINE-OUT-ON
T-PLAY
T-STOP
T-END-OF-MSG
RESERVED
RESERVED
STOP
PLAY
ONAIR
PREVIOUS
TOP-PREVIEW
FF
REW
FAD1
FAD2
EJECT
TC-CHASE
STAND-BY
NEXT
SL129 (500K)
SL130 (250K)
SL131 (125K)
ICE6 SN74HC00ANS
ICE7 TC74HC123AF
ICF7 TC74HC123AF
KEYDG0
KEYDG1
KEYDG2
KEYDG3
KEYDG4
KEYDG5
1
2
3
4
5
A
B
C
D
E
F
G
H
I


100K
1/4
8279 CLOCK
1/4
T-PLAY
T-STOP
T-END-OF-MSG
Q32
DTC343TK-T-146
R-STBY
R50
10
C57
10p
T-STAND-BY
Q35
DTC343TK-T-146
R-FF
R53
10
C72
10p
T-FF
Q36
DTC343TK-T-146
R-REW
R54
10
C73
10p
T-REW
Q37
DTC343TK-T-146
R-TC-CHASE
R55
10
C69
10p
T-TC-CHASE
Q39
DTC343TK-T-146
R-LINE-OUT-ON
R57
10
C64
10p
T-LINE-OUT-ON
RESERVED
T-STAND-BY 5
T-FF 2
T-REW 3
T-TC-CHASE 1
T-LINE-OUT-ON 4
5V
RL0
PH7
PC317Z
RL7
ONAIR
R64
330
RL1
D64
1S2837-T1
PH8
PC317Z
RL1
PREVIOUS
R65
330
PH9
PC317Z
RL3
TOP-PREVIEW
R66
330
D65
1S2837-T1
PH10
PC317Z
RL4
FAD1
R67
330
PH11
PC317Z
RL5
FAD2
R68
330
D66
1S2837-T1
PH12
PC317Z
RL6
TC-CHASE
R69
330
RL7
PH13
PC317Z
RL0
NEXT
R70
330
KEYDG3
NEXT 12
PREVIOUS 6
FF 9
REW 10
EJECT 15
STAND-BY 11
TOP-PREVIEW 13
FAD1 7
FAD2 8
TC-CHASE 14
TO REAR CONNECTOR PANEL
CN108(2/2) 22P
T-PLAY 1
T-END-OF-MSG 2
STOP 3
PLAY 4
GND 5
GND 6
T-STOP 7
GND 8
+5 9
+5 10
ONAIR 11
FROM/TO
CN-812,CN141
5V
PS1
C31
10
50V

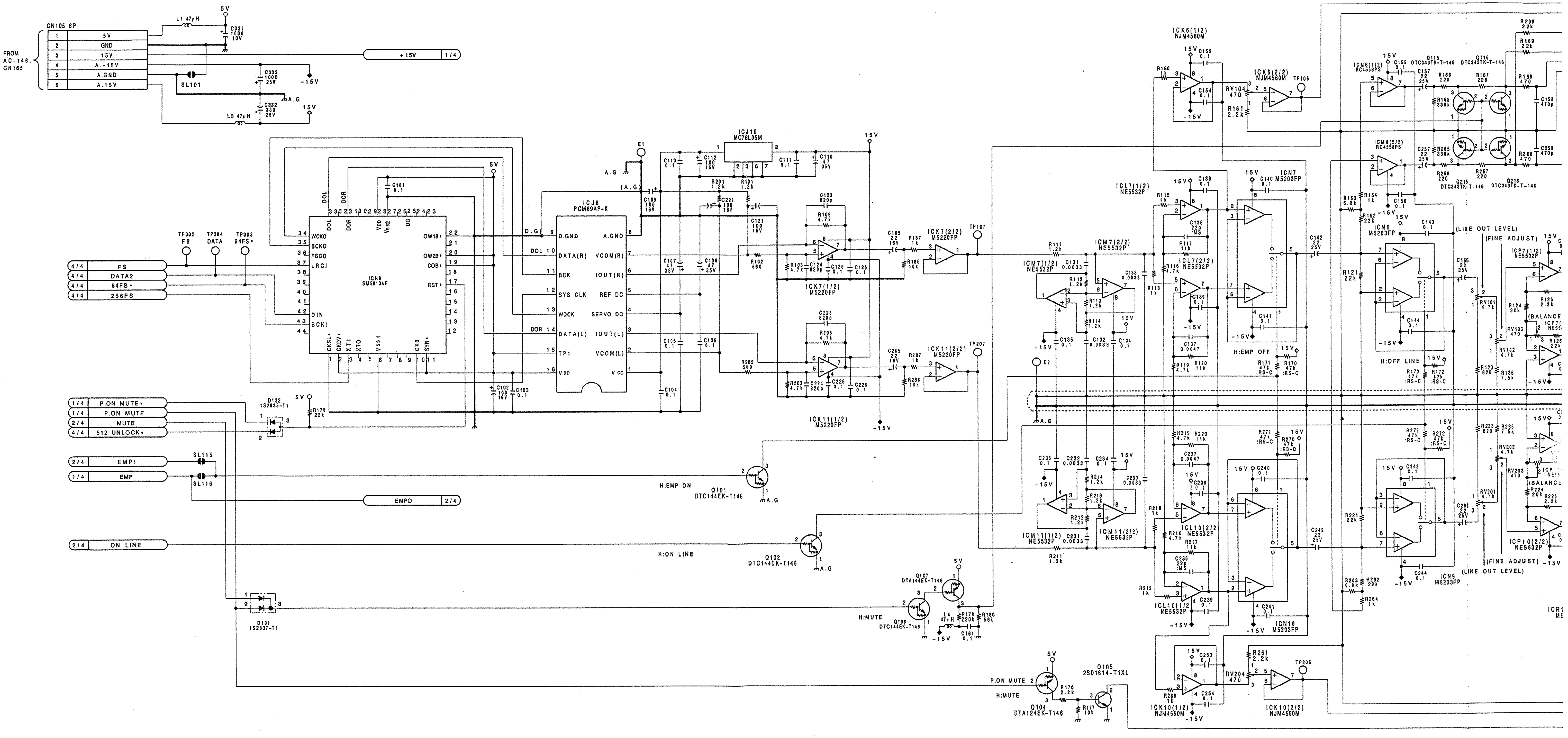
Audio System Control and Clock

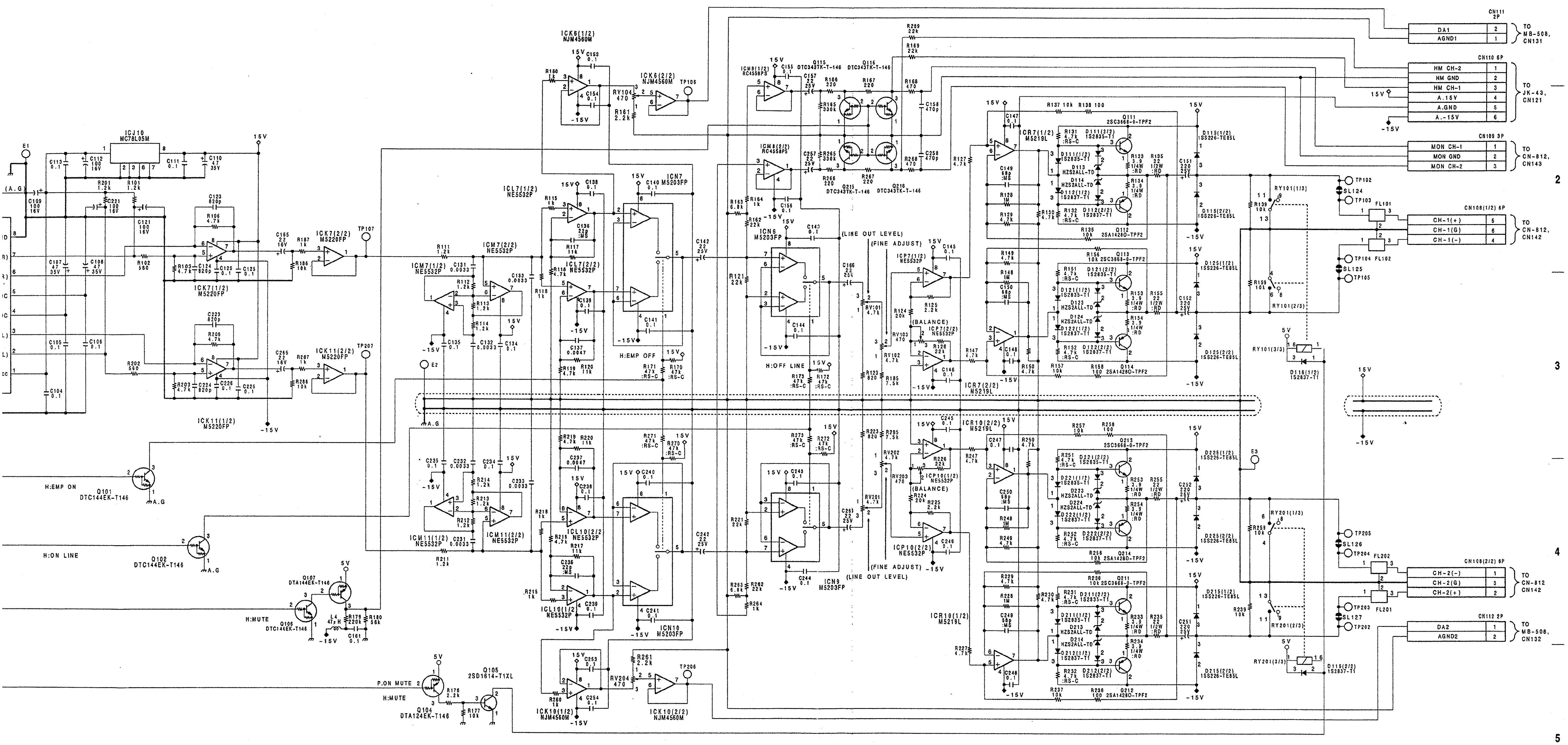
AU-183 BOARD (2/4)

BOARD NO.1-649-022-11
CDP-3100

AU-183 BOARD(3/4)
CDP-3100

AU-183 BOARD(3/4)
CDP-3100

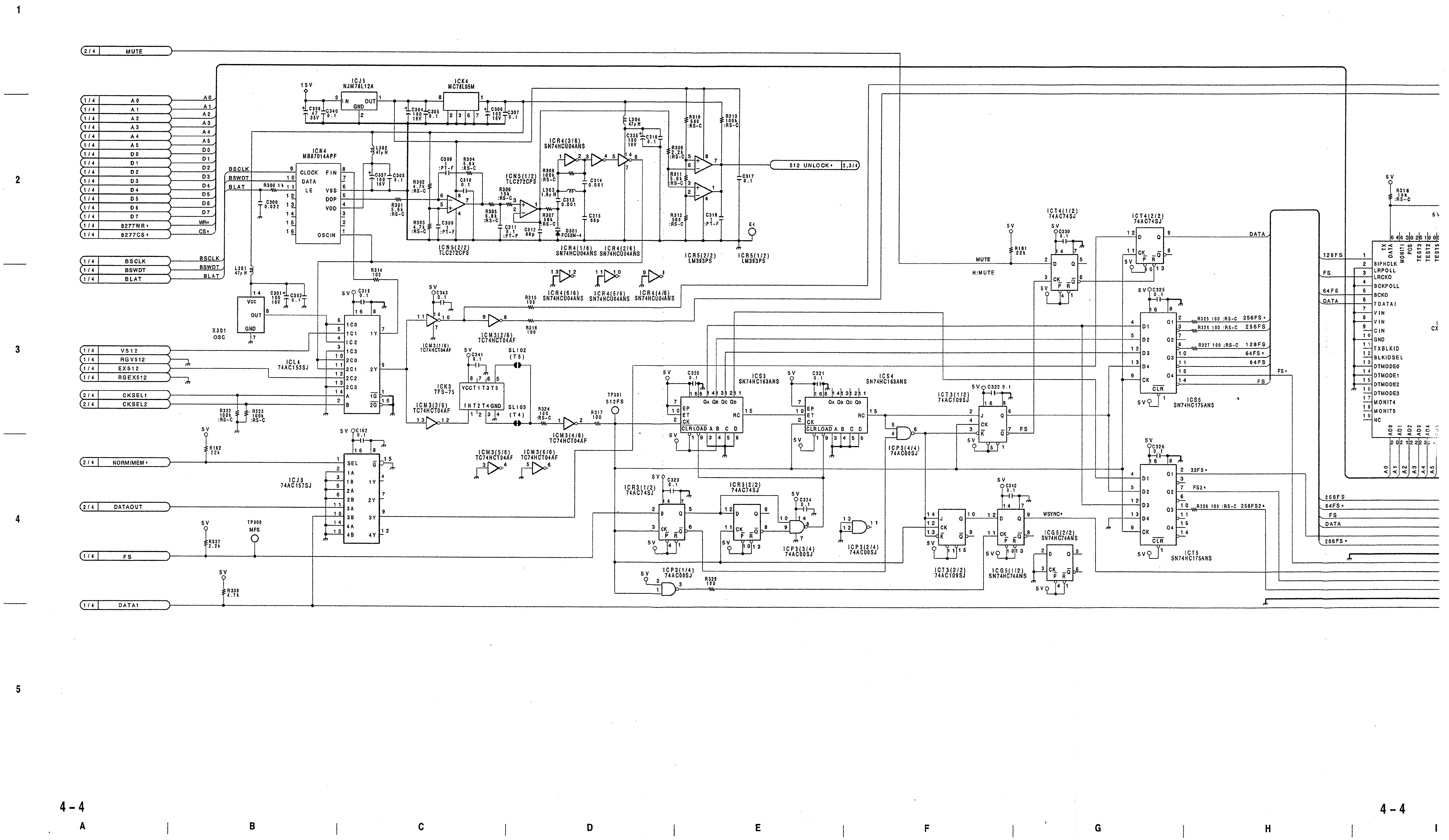

FROM AC-146, CN165
CN105 6P
1 5V
2 GND
3 15V
4 A.-15V
5 A.GND
6 A.15V
L1 47μH
C331 1000 10V
C333 1000 25V
C332 330 25V
L3 47μH
SL101
+15V 1/4
-15V
A.G
5V
15V
ICJ10 MC78L05M
E1
ICJ8 PCM69AP-K
ICH8 SM5813AF
TP302 FS
TP304 DATA
TP303 64FS*
4/4 FS
4/4 DATA2
4/4 64FS*
4/4 256FS
WCKO
BCKO
FSCO
LRCI
DIN
BCKI
OW18*
OW20*
COB*
RST*
D.GND
DATA(R)
BCK
SYS CLK
WDCK
DATA(L)
TP1
VDD
A.GND
VCOM(R)
IOUT(R)
REF DC
SERVO DC
IOUT(L)
VCOM(L)
VCC
ICK7(1/2) M5220FP
ICK7(2/2) M5220FP
ICK11(1/2) M5220FP
ICK11(2/2) M5220FP
TP107
TP207
1/4 P.ON MUTE*
1/4 P.ON MUTE
2/4 MUTE
4/4 512 UNLOCK*
D132 1S2835-T1
R178 22k
2/4 EMPI
1/4 EMP
SL115
SL116
EMPO 2/4
H:EMP ON
Q101 DTC144EK-T146
2/4 ON LINE
H:ON LINE
Q102 DTC144EK-T146
D131 1S2837-T1
Q107 DTA144EK-T146
Q106 DTC144EK-T146
H:MUTE
L4 47μH
P.ON MUTE
H:MUTE
Q104 DTA124EK-T146
Q105 2SD1614-T1XL
ICK6(1/2) NJM4560M
ICK6(2/2) NJM4560M
TP106
RV104 470
ICL7(1/2) NE5532P
ICL7(2/2) NE5532P
ICM7(1/2) NE5532P
ICM7(2/2) NE5532P
ICN7 M5203FP
H:EMP OFF
E2
ICM11(1/2) NE5532P
ICM11(2/2) NE5532P
ICL10(1/2) NE5532P
ICL10(2/2) NE5532P
ICN10 M5203FP
ICK10(1/2) NJM4560M
ICK10(2/2) NJM4560M
RV204 470
TP206
ICN8(1/2) RC4558PS
ICN8(2/2) RC4558PS
Q115 DTC343TK-T-146
Q116 DTC343TK-T-146
Q215 DTC343TK-T-146
Q216 DTC343TK-T-146
ICN6 M5203FP
ICN9 M5203FP
H:OFF LINE
(LINE OUT LEVEL)
(FINE ADJUST)
ICP7(1/2) NE5532P
ICP10(2/2) NE5532P
(BALANCE)
RV101 4.7k
RV102 4.7k
RV103 470
RV201 4.7k
RV202 4.7k
RV203 470
A | B | C | D | E | F | G | H | I

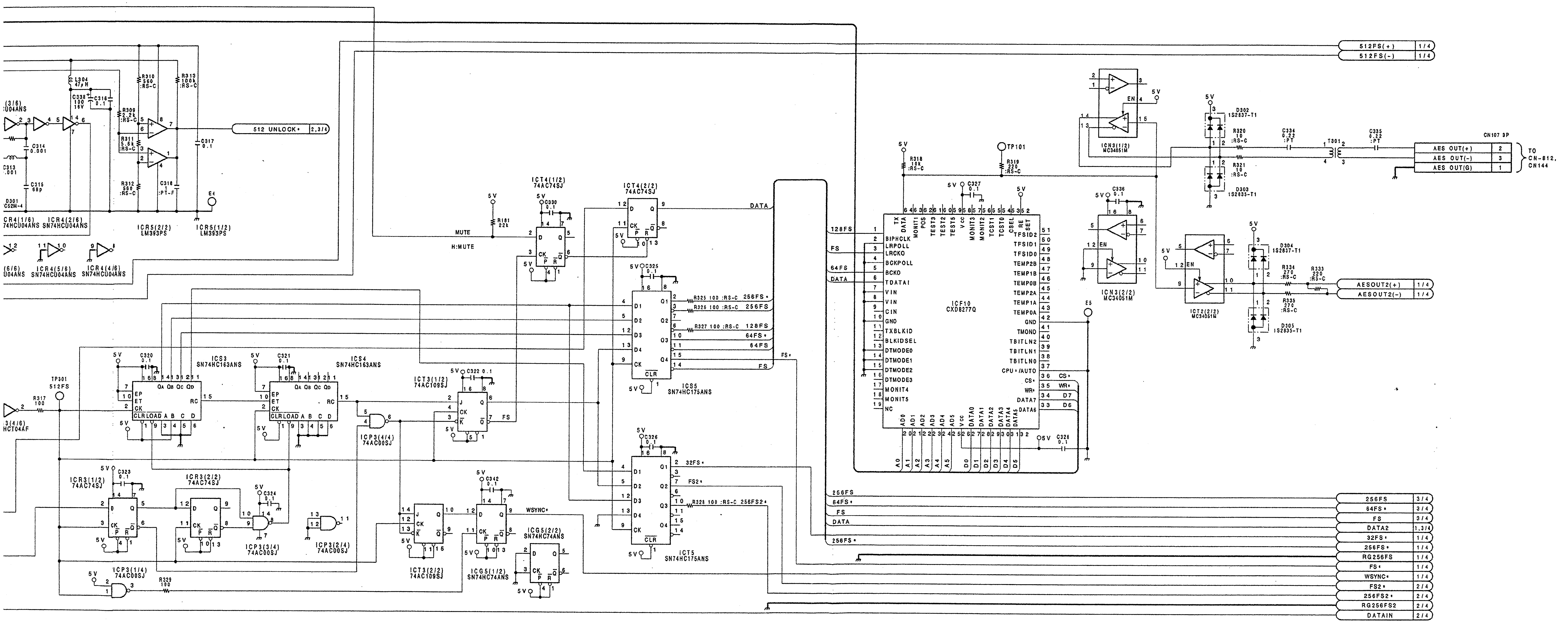

CN111 2P
DA1
AGND1
TO MB-508, CN131
CN110 6P
HM CH-2
HM GND
HM CH-1
A.15V
A.GND
A.-15V
TO JK-43, CN121
CN109 3P
MON CH-1
MON GND
MON CH-2
TO CN-812, CN143
CN108(1/2) 6P
CH-1(+)
CH-1(G)
CH-1(-)
TO CN-812, CN142
CN108(2/2) 6P
CH-2(-)
CH-2(G)
CH-2(+)
TO CN-812 CN142
CN112 2P
DA2
AGND2
TO MB-508, CN132
IC J10 MC78L05M
ICK7(1/2) M5220FP
ICK7(2/2) M5220FP
ICK11(1/2) M5220FP
ICK11(2/2) M5220FP
ICM7(1/2) NE5532P
ICM7(2/2) NE5532P
ICM11(1/2) NE5532P
ICM11(2/2) NE5532P
ICL7(1/2) NE5532P
ICL7(2/2) NE5532P
ICL10(1/2) NE5532P
ICL10(2/2) NE5532P
ICK6(1/2) NJM4560M
ICK6(2/2) NJM4560M
ICK10(1/2) NJM4560M
ICK10(2/2) NJM4560M
ICN7 M5203FP
ICN10 M5203FP
ICN6 M5203FP
ICN9 M5203FP
ICM8(1/2) RC4558PS
ICM8(2/2) RC4558PS
ICP7(1/2) NE5532P
ICP7(2/2) NE5532P
ICP10(1/2) NE5532P
ICP10(2/2) NE5532P
ICR7(1/2) M5219L
ICR7(2/2) M5219L
ICR10(1/2) M5219L
ICR10(2/2) M5219L
Q101 DTC144EK-T146
Q102 DTC144EK-T146
Q104 DTA124EK-T146
Q105 2SD1614-T1XL
Q106 DTC144EK-T146
Q107 DTA144EK-T146
H:EMP ON
H:ON LINE
H:MUTE
P.ON MUTE
H:EMP OFF
H:OFF LINE
(LINE OUT LEVEL)
(FINE ADJUST)
(BALANCE)
RY101
RY201
FL101
FL102
FL201
FL202
15V
-15V
5V
A.G
1
2
3
4
5
E
F
G
H
I
J
K
L

Audio System Control and Clock

AU-183 BOARD (3/4)

BOARD NO.1-649-022-11
CDP-3100


1
2
3
4
5
A
B
C
D
E
F
G
H
I
2/4 MUTE
1/4 A0
1/4 A1
1/4 A2
1/4 A3
1/4 A4
1/4 A5
1/4 D0
1/4 D1
1/4 D2
1/4 D3
1/4 D4
1/4 D5
1/4 D6
1/4 D7
1/4 8277WR*
1/4 8277CS*
1/4 BSCLK
1/4 BSWDT
1/4 BLAT
1/4 V512
1/4 RGV512
1/4 EX512
1/4 RGEX512
2/4 CKSEL1
2/4 CKSEL2
2/4 NORM/MEM*
2/4 DATAOUT
1/4 FS
1/4 DATA1
15V
ICJ5 NJM78L12A
IN OUT GND
ICK4 MC78L05M
C339 47 35V
C340 0.1
C304 100 16V
C305 0.1
C306 100 16V
C307 0.1
ICN4 MB87014APF
CLOCK FIN DATA VSS LE DOP VDD OSCIN
R300 1k
C300 0.022
L302 47μH
C337 100 16V
C303 0.1
R302 4.7k :RS-C
R301 5.6k :RS-C
R303 4.7k :RS-C
C308 1 :PT-F
R304 5.6k :RS-C
C310 0.1
C309 1 :PT-F
ICN5(2/2) TLC272CPS
ICN5(1/2) TLC272CPS
R306 15k :RS-C
R305 6.8k :RS-C
C311 0.1 :PT-F
C312 68p
R308 100k :RS-C
L303 1.8μH
R307 56k :RS-C
C313 0.001
D301 FC52M-4
ICR4(3/6) SN74HCU04ANS
C314 0.001
C315 68p
ICR4(1/6) SN74HCU04ANS
ICR4(2/6) SN74HCU04ANS
L304 47μH
C338 100 16V
C316 0.1
R310 560 :RS-C
R313 100k :RS-C
R309 2.2k :RS-C
R311 5.6k :RS-C
R312 560 :RS-C
C318 1 :PT-F
C317 0.1
ICR5(2/2) LM393PS
ICR5(1/2) LM393PS
512 UNLOCK* 2,3/4
E4
L301 47μH
C301 100 16V
C302 0.1
X301 OSC
Vcc OUT GND
R314 100
6V C319 0.1
ICL4 74AC153SJ
1C0 1C1 1C2 1C3 2C0 2C1 2C2 2C3 A B 1Y 2Y 1G 2G
R322 100k :RS-C
R323 100k :RS-C
5V
R182 22k
5V C162 0.1
ICJ3 74AC157SJ
SEL G 1A 1B 2A 2B 3A 3B 4A 4B 1Y 2Y 3Y 4Y
R337 2.2k
TP300 MFS
R338 4.7k
5V C343 0.1
ICM3(1/6) TC74HCT04AF
ICM3(2/6) TC74HCT04AF
ICR4(6/6) SN74HCU04ANS
ICR4(5/6) SN74HCU04ANS
ICR4(4/6) SN74HCU04ANS
R315 100
R316 100
5V C341 0.1
ICK3 TFS-75
VCC T1 T3 T5 IN T2 T4 GND
SL102 (T5)
SL103 (T4)
ICM3(3/6) TC74HCT04AF
R324 100 :RS-C
ICM3(4/6) TC74HCT04AF
R317 100
TP301 512FS
ICM3(5/6) TC74HCT04AF
ICM3(6/6) TC74HCT04AF
5V C320 0.1
ICS3 SN74HC163ANS
EP ET CK CLR LOAD A B C D QA QB QC QD RC
5V C321 0.1
ICS4 SN74HC163ANS
ICP3(4/4) 74AC00SJ
5V C323 0.1
ICR3(1/2) 74AC74SJ
ICR3(2/2) 74AC74SJ
5V C324 0.1
ICP3(3/4) 74AC00SJ
ICP3(2/4) 74AC00SJ
ICP3(1/4) 74AC00SJ
R329 100
5V C322 0.1
ICT3(1/2) 74AC109SJ
ICT3(2/2) 74AC109SJ
5V C342 0.1
ICG5(2/2) SN74HC74ANS
ICG5(1/2) SN74HC74ANS
WSYNC*
MUTE
H:MUTE
5V R181 22k
5V C330 0.1
ICT4(1/2) 74AC74SJ
ICT4(2/2) 74AC74SJ
DATA
5V C325 0.1
ICS5 SN74HC175ANS
D1 D2 D3 D4 CK CLR Q1 Q2 Q3 Q4
R325 100 :RS-C 256FS*
R326 100 :RS-C 256FS
R327 100 :RS-C 128FS
64FS*
64FS
FS*
FS
5V C326 0.1
ICT5 SN74HC175ANS
32FS*
FS2*
R328 100 :RS-C 256FS2*
5V R318 10k :RS-C
128FS
FS
64FS
DATA
256FS
64FS*
FS
DATA
256FS*
TX DATA MONIT1 POS TEST2 TEST3 TEST5
BIPHCLK
LRPOLL
LRCKO
BCKPOLL
BCKO
TDATAI
VIN
VIN
CIN
GND
TXBLKID
BLKIDSEL
DTMODE0
DTMODE1
DTMODE2
DTMODE3
MONIT4
MONIT5
NC
AD0 AD1 AD2 AD3 AD4
A0 A1 A2 A3 A4 A5
CX


512 UNLOCK*
2,3/4
L304 47μH
C338 100 16V
C316 0.1
R310 560 :RS-C
R313 100k :RS-C
R309 2.2k :RS-C
R311 5.6k :RS-C
R312 560 :RS-C
C317 0.1
C318 1 :PT-F
C314 0.001
C315 68p
D301 CS2M-4
ICR4(1/6) 74HCU04ANS
ICR4(2/6) SN74HCU04ANS
ICR5(2/2) LM393PS
ICR5(1/2) LM393PS
ICR4(5/6) SN74HCU04ANS
ICR4(4/6) SN74HCU04ANS
E4
MUTE
H:MUTE
R181 22k
ICT4(1/2) 74AC74SJ
C330 0.1
ICT4(2/2) 74AC74SJ
C325 0.1
R325 100 :RS-C 256FS*
R326 100 :RS-C 256FS
R327 100 :RS-C 128FS
64FS*
64FS
FS
FS*
ICS5 SN74HC175ANS
DATA
TP301 512FS
R317 100
ICS3 SN74HC163ANS
ICS4 SN74HC163ANS
C320 0.1
C321 0.1
ICT3(1/2) 74AC109SJ
C322 0.1
ICP3(4/4) 74AC00SJ
ICR3(1/2) 74AC74SJ
C323 0.1
ICR3(2/2) 74AC74SJ
C324 0.1
ICP3(3/4) 74AC00SJ
ICP3(2/4) 74AC00SJ
ICP3(1/4) 74AC00SJ
R329 100
ICT3(2/2) 74AC109SJ
C342 0.1
ICG5(1/2) SN74HC74ANS
ICG5(2/2) SN74HC74ANS
WSYNC*
C326 0.1
32FS*
FS2*
R328 100 :RS-C 256FS2*
ICT5 SN74HC175ANS
128FS
FS
64FS
DATA
R318 10k :RS-C
TP101
R319 220 :RS-C
C327 0.1
ICF10 CXD8277Q
BIPHCLK
LRPOLL
LRCKO
BCKPOLL
BCKO
TDATAI
VIN
VIN
CIN
GND
TXBLKID
BLKIDSEL
DTMODE0
DTMODE1
DTMODE2
DTMODE3
MONIT4
MONIT5
NC
TX DATA
MONIT1
POS
TEST3
TEST2
TEST5
Vcc
MONIT3
MONIT2
TCST1
TCST0
CSEL
RE SET
TFSID2
TFSID1
TFSID0
TEMP2B
TEMP1B
TEMP0B
TEMP2A
TEMP1A
TEMP0A
GND
TMONO
TBITLN2
TBITLN1
TBITLN0
CPU*/AUTO
CS*
WR*
DATA7
DATA6
AD0 AD1 AD2 AD3 AD4 AD5 Vcc DATA0 DATA1 DATA2 DATA3 DATA4 DATA5
A0 A1 A2 A3 A4 A5 D0 D1 D2 D3 D4 D5
CS*
WR*
D7
D6
C328 0.1
E5
ICN3(1/2) MC34051M
C336 0.1
ICN3(2/2) MC34051M
ICT2(2/2) MC34051M
D302 1S2837-T1
R320 10 :RS-C
C334 0.22 :PT
T301
C335 0.22 :PT
R321 10 :RS-C
D303 1S2835-T1
CN107 3P
AES OUT(+) 2
AES OUT(-) 3
AES OUT(G) 1
TO CN-812, CN144
D304 1S2837-T1
R334 270 :RS-C
R333 220 :RS-C
R335 270 :RS-C
D305 1S2835-T1
AESOUT2(+) 1/4
AESOUT2(-) 1/4
512FS(+) 1/4
512FS(-) 1/4
256FS 3/4
64FS* 3/4
FS 3/4
DATA2 1,3/4
32FS* 1/4
256FS* 1/4
RG256FS 1/4
FS* 1/4
WSYNC* 1/4
FS2* 2/4
256FS2* 2/4
RG256FS2 2/4
DATAIN 2/4
5V

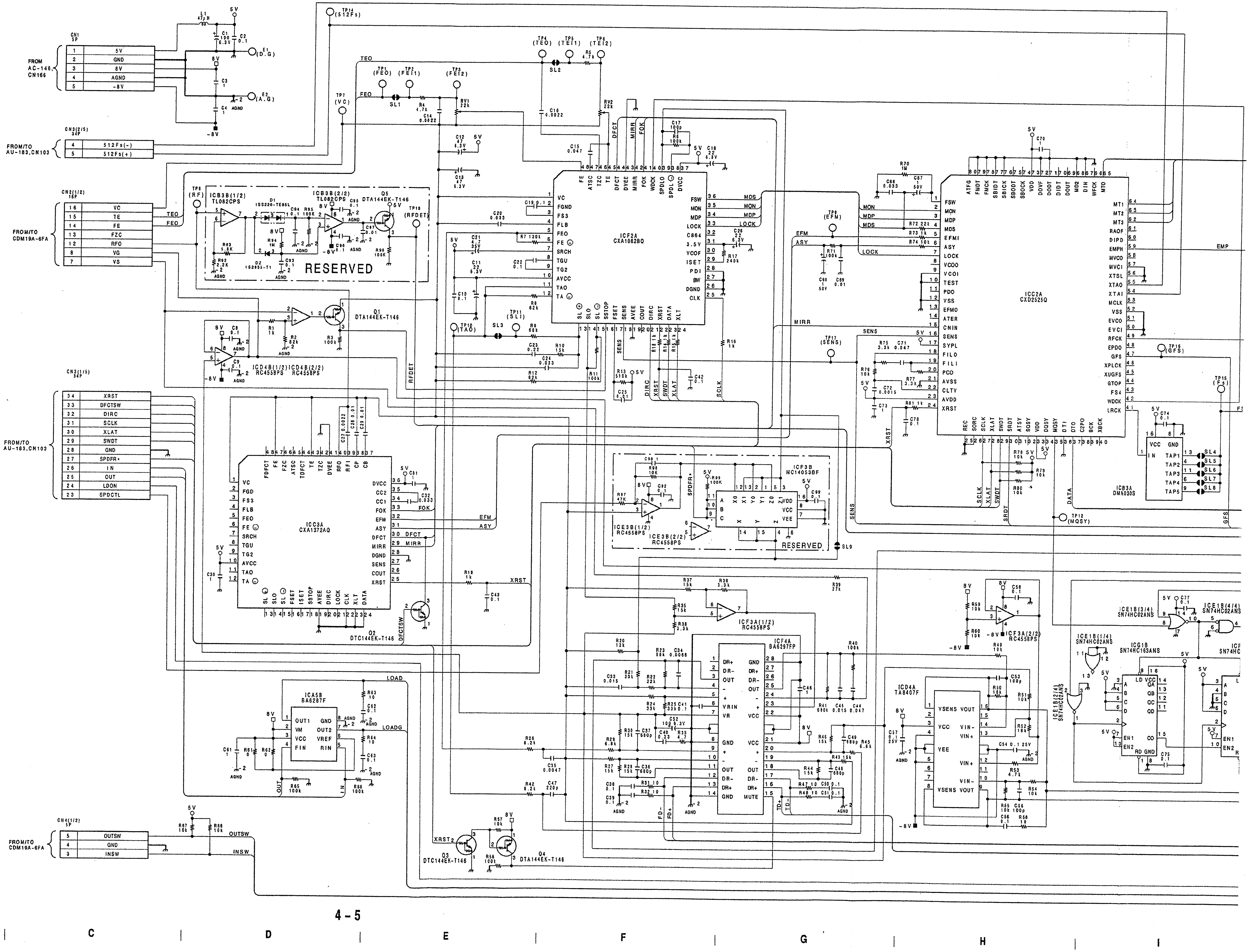
Audio System Control and Clock

AU-183 BOARD (4/4)

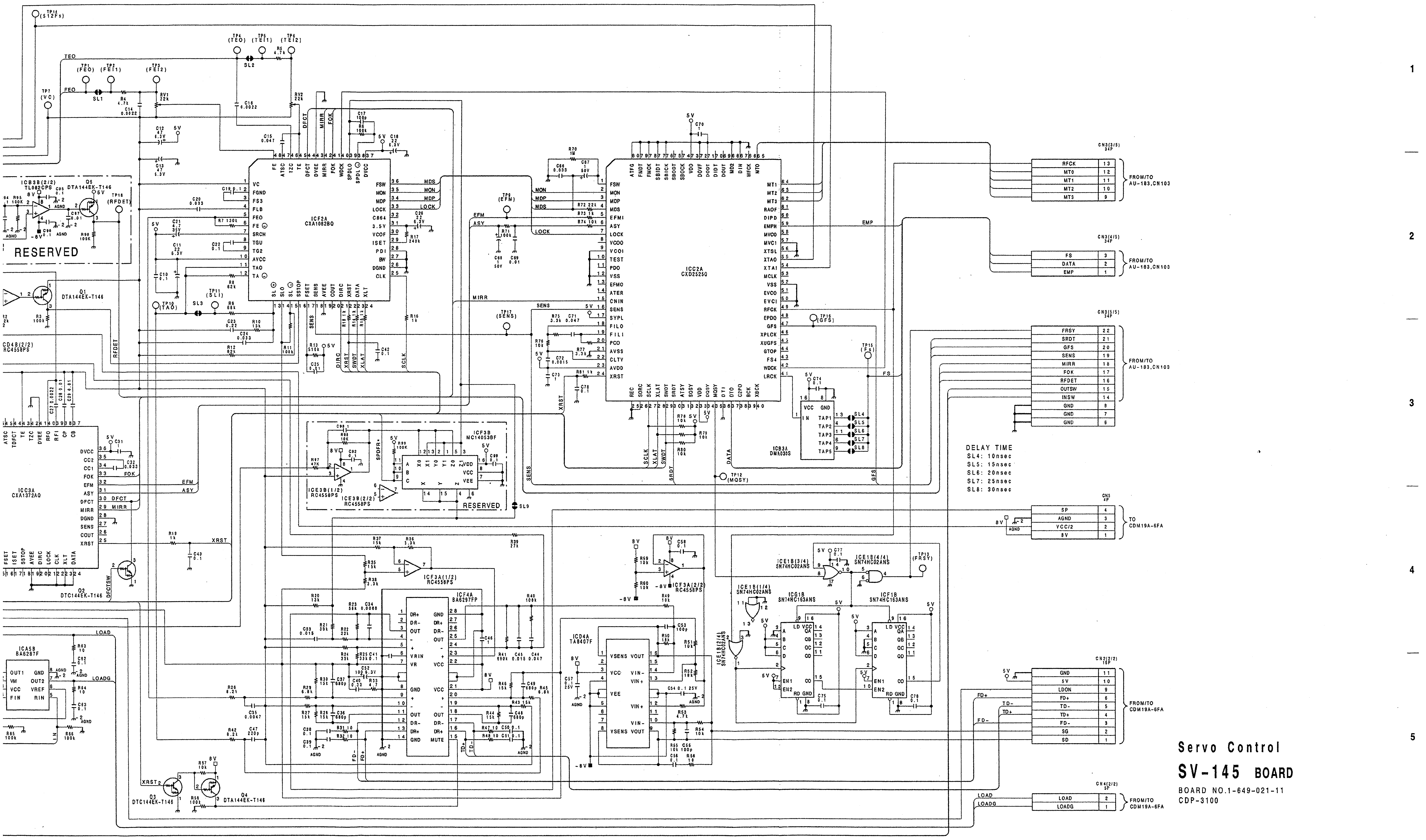
BOARD NO.1-649-022-11
CDP-3100

D | E | F | G | H | I | J | K | L

SV-145 BOARD SV-145 BOARD
CDP-3100 CDP-3100



FROM AC-146, CN166
CN1 5P
5V
GND
8V
AGND
-8V
L1 47μH
C1 100 6.3V
C2 0.1
E1 (D.G)
E2 (A.G)
FROM/TO AU-183,CN103
CN3(2/5) 34P
512Fs(-)
512Fs(+)
TP14 (512Fs)
FROM/TO CDM19A-6FA
CN2(1/2) 16P
VC
TE
FE
FZC
RFO
VG
VS
TEO
FEO
ICB3B(1/2) TL082CPS
ICB3B(2/2) TL082CPS
D1 1SS226-TE85L
D2 1S2835-T1
Q5 DTA144EK-T146
TP8 (RF)
TP18 (RFDET)
RESERVED
Q1 DTA144EK-T146
ICD4B(1/2) ICD4B(2/2) RC4558PS RC4558PS
CN3(1/5) 34P
XRST
DFCTSW
DIRC
SCLK
XLAT
SWDT
GND
SPDFR+
IN
OUT
LDON
SPDCTL
TP7 (VC)
TP1 (FEO)
TP2 (FEI1)
TP3 (FEI2)
SL1
RV1 22k
TP4 (TEO)
TP5 (TEI1)
TP6 (TEI2)
SL2
RV2 22k
ICF2A CXA1082BQ
TP10 (TAO)
TP11 (SLI)
SL3
ICC3A CXA1372AQ
Q2 DTC144EK-T146
ICA5B BA6287F
LOAD
LOADG
CN4(1/2) 5P
FROM/TO CDM19A-6FA
OUTSW
GND
INSW
Q3 DTC144EK-T146
Q4 DTA144EK-T146
ICF3B MC14053BF
ICE3B(1/2) RC4558PS
ICE3B(2/2) RC4558PS
RESERVED
SL9
ICF3A(1/2) RC4558PS
ICF4A BA6297FP
ICF3A(2/2) RC4558PS
ICD4A TA8407F
TP9 (EFM)
TP17 (SENS)
ICC2A CXD2525Q
TP16 (GFS)
TP15 (FS)
TP12 (MQSY)
ICB3A DMA030S
TAP1
TAP2
TAP3
TAP4
TAP5
SL4
SL5
SL6
SL7
SL8
ICE1B(3/4) SN74HC02ANS
ICE1B(4/4) SN74HC02ANS
ICE1B(1/4) SN74HC02ANS
ICE1B(2/4) SN74HC02ANS
ICG1B SN74HC163ANS
EMP
MON
MDP
MDS
LOCK
EFM
ASY
MIRR
SENS
DFCT
FOK
XRST
SCLK
XLAT
SWDT
SRDT
DATA
GFS
A
B
C
D
E
F
G
H
I

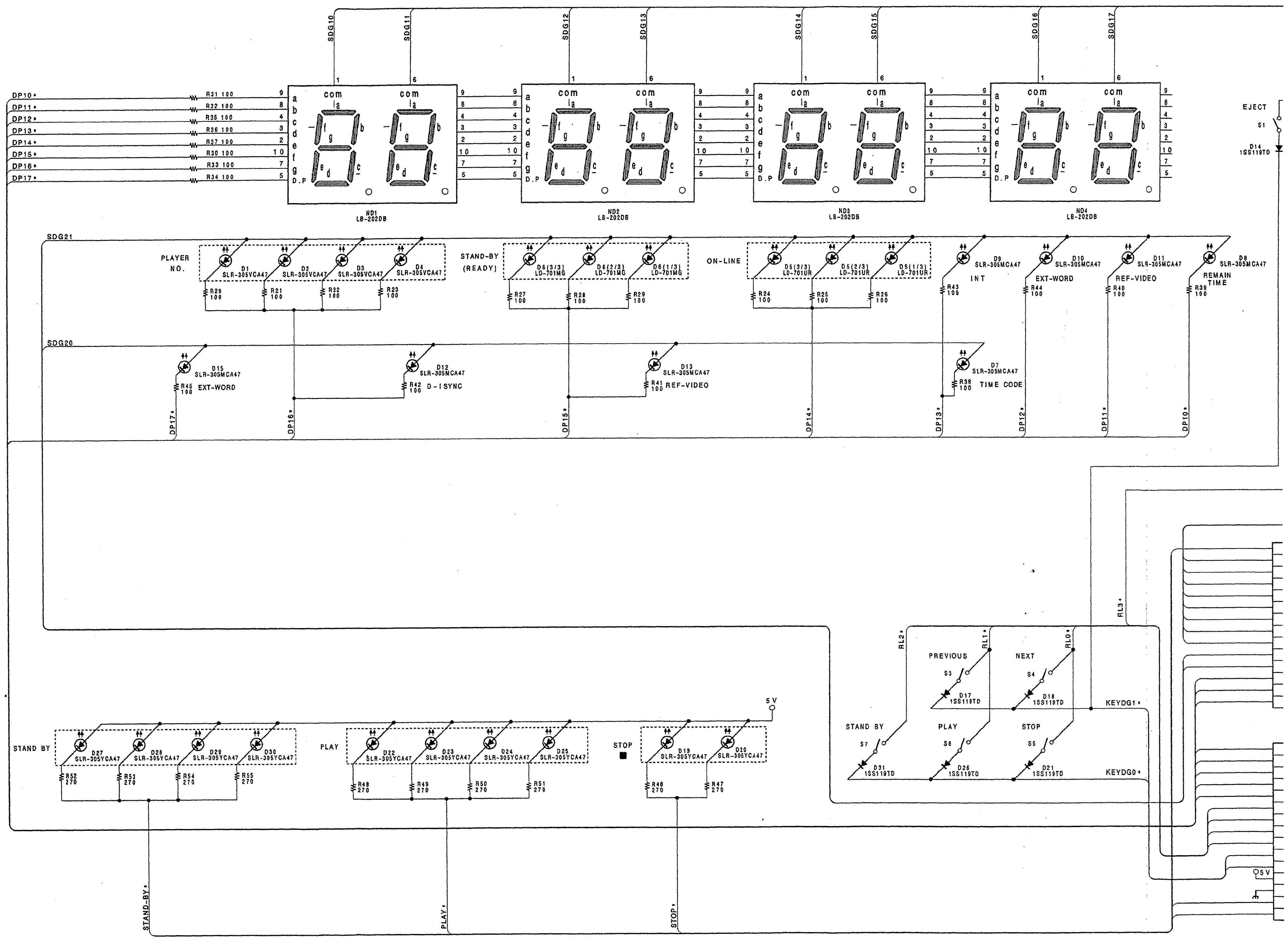

ICF2A
CXA1082BQ
ICC2A
CXD2525Q
ICC3A
CXA1372AQ
ICF3B
MC14053BF
ICE3B(1/2)
RC4558PS
ICE3B(2/2)
RC4558PS
ICF3A(1/2)
RC4558PS
ICF3A(2/2)
RC4558PS
ICF4A
BA6297FP
ICD4A
TA8407F
ICB3A
DM4030S
ICE1B(3/4)
SN74HC02ANS
ICE1B(4/4)
SN74HC02ANS
ICE1B(1/4)
SN74HC02ANS
ICE1B(2/4)
SN74HC02ANS
ICG1B
SN74HC163ANS
ICF1B
SN74HC163ANS
ICA5B
BA6287F
ICB3B(2/2)
TL082CPS
Q5
DTA144EK-T146
Q1
DTA144EK-T146
Q2
DTC144EK-T146
Q3
DTC144EK-T146
Q4
DTA144EK-T146
RESERVED
RESERVED
CN3(3/5) 34P
RFCK 13
MT0 12
MT1 11
MT2 10
MT3 9
FROM/TO AU-183,CN103
CN3(4/5) 34P
FS 3
DATA 2
EMP 1
FROM/TO AU-183,CN103
CN3(5/5) 34P
FRSY 22
SRDT 21
GFS 20
SENS 19
MIRR 18
FOK 17
RFDET 16
OUTSW 15
INSW 14
GND 8
GND 7
GND 6
FROM/TO AU-183,CN103
CN5 4P
SP 4
AGND 3
VCC/2 2
8V 1
TO CDM19A-6FA
CN2(2/2) 16P
GND 11
5V 10
LOON 9
FD+ 6
TD- 5
TD+ 4
FD- 3
SG 2
SD 1
FROM/TO CDM19A-6FA
CN4(2/2) 5P
LOAD 2
LOADG 1
FROM/TO CDM19A-6FA
TP14 (S12Fs)
TP4 (TEO)
TP5 (TE1)
TP6 (TE2)
TP1 (FEO)
TP2 (FE1)
TP3 (FE2)
TP7 (VC)
TP18 (RFDET)
TP8 (EFM)
TP17 (SENS)
TP16 (GFS)
TP15 (FS)
TP12 (MOSY)
TP13 (FRSY)
TP10 (TAO)
TP11 (SL1)
1
2
3
4
5
E
F
G
H
I
J
K
L

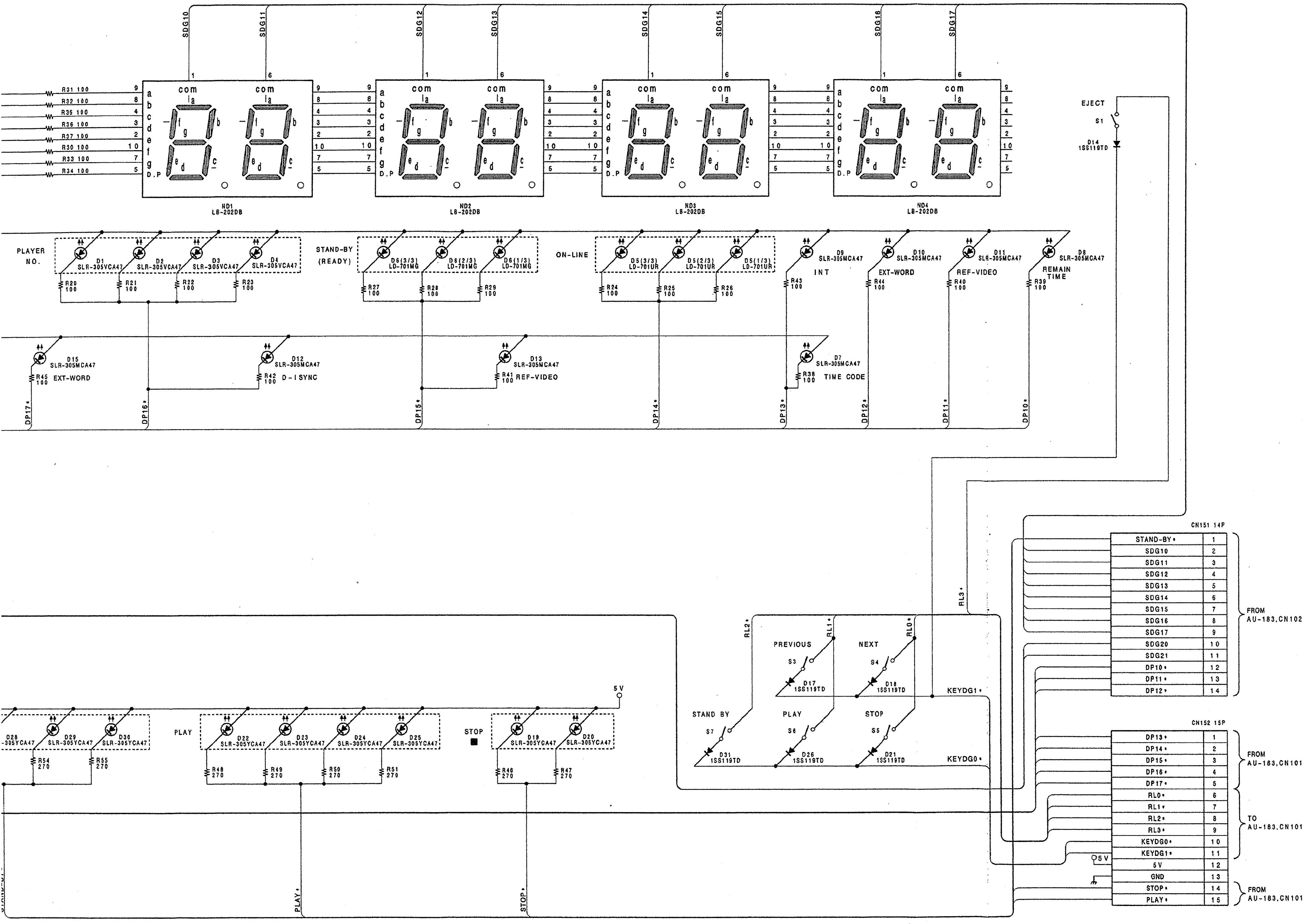
DELAY TIME
SL4: 10nsec
SL5: 15nsec
SL6: 20nsec
SL7: 25nsec
SL8: 30nsec

Servo Control

SV-145 BOARD

BOARD NO.1-649-021-11
CDP-3100

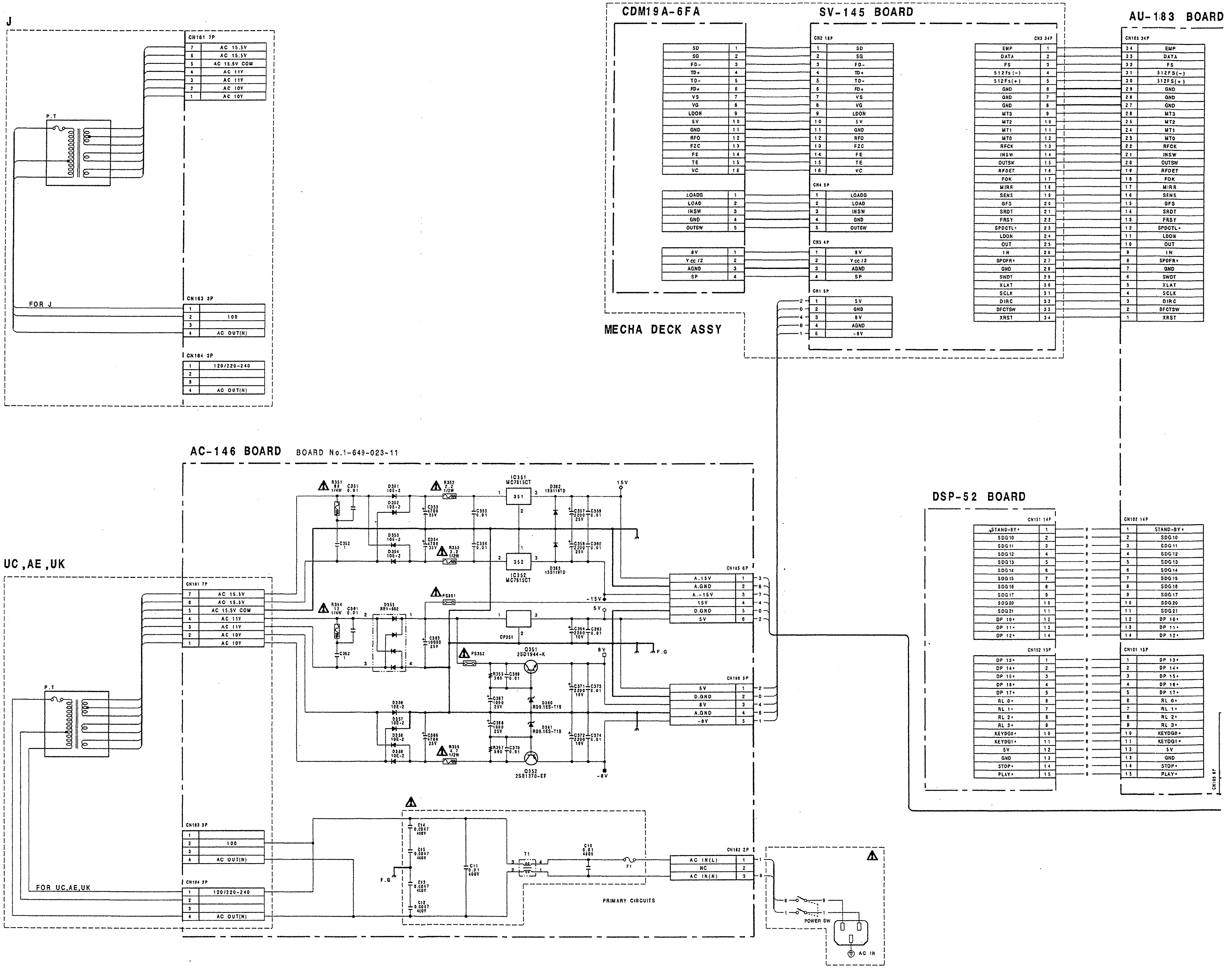

SDG10
SDG11
SDG12
SDG13
SDG14
SDG15
SDG16
SDG17
DP10*
DP11*
DP12*
DP13*
DP14*
DP15*
DP16*
DP17*
R31 100
R32 100
R35 100
R36 100
R37 100
R30 100
R33 100
R34 100
com
a b c d e f g D.P
ND1 LB-202DB
ND2 LB-202DB
ND3 LB-202DB
ND4 LB-202DB
EJECT
S1
D14 1SS119TD
SDG21
PLAYER NO.
D1 SLR-305VCA47
D2 SLR-305VCA47
D3 SLR-305VCA47
D4 SLR-305VCA47
R20 100
R21 100
R22 100
R23 100
STAND-BY (READY)
D6(3/3) LD-701MG
D6(2/3) LD-701MG
D6(1/3) LD-701MG
R27 100
R28 100
R29 100
ON-LINE
D5(3/3) LD-701UR
D5(2/3) LD-701UR
D5(1/3) LD-701UR
R24 100
R25 100
R26 100
D9 SLR-305MCA47
INT
R43 100
D10 SLR-305MCA47
EXT-WORD
R44 100
D11 SLR-305MCA47
REF-VIDEO
R40 100
D8 SLR-305MCA47
REMAIN TIME
R39 100
SDG20
D15 SLR-305MCA47
R45 100 EXT-WORD
D12 SLR-305MCA47
R42 100 D-I SYNC
D13 SLR-305MCA47
R41 100 REF-VIDEO
D7 SLR-305MCA47
R38 100 TIME CODE
RL3*
RL2*
RL1*
RL0*
PREVIOUS
S3
D17 1SS119TD
NEXT
S4
D18 1SS119TD
KEYDG1*
STAND BY
S7
D31 1SS119TD
PLAY
S6
D26 1SS119TD
STOP
S5
D21 1SS119TD
KEYDG0*
5V
STAND BY
D27 SLR-305YCA47
D28 SLR-305YCA47
D29 SLR-305YCA47
D30 SLR-305YCA47
R52 270
R53 270
R54 270
R55 270
PLAY
D22 SLR-305YCA47
D23 SLR-305YCA47
D24 SLR-305YCA47
D25 SLR-305YCA47
R48 270
R49 270
R50 270
R51 270
STOP ■
D19 SLR-305YCA47
D20 SLR-305YCA47
R46 270
R47 270
STAND-BY*
PLAY*
STOP*
5V


SDG10
SDG11
SDG12
SDG13
SDG14
SDG15
SDG16
SDG17
R31 100
R32 100
R35 100
R36 100
R37 100
R30 100
R33 100
R34 100
com
ND1 LB-202DB
ND2 LB-202DB
ND3 LB-202DB
ND4 LB-202DB
EJECT
S1
D14 1SS119TD
PLAYER NO.
D1 SLR-305VCA47
D2 SLR-305VCA47
D3 SLR-305VCA47
D4 SLR-305VCA47
R20 100
R21 100
R22 100
R23 100
STAND-BY (READY)
D6(3/3) LD-701MG
D6(2/3) LD-701MG
D6(1/3) LD-701MG
R27 100
R28 100
R29 100
ON-LINE
D5(3/3) LD-701UR
D5(2/3) LD-701UR
D5(1/3) LD-701UR
R24 100
R25 100
R26 100
D9 SLR-305MCA47
INT
R43 100
D10 SLR-305MCA47
EXT-WORD
R44 100
D11 SLR-305MCA47
REF-VIDEO
R40 100
D8 SLR-305MCA47
REMAIN TIME
R39 100
D15 SLR-305MCA47
R45 100 EXT-WORD
D12 SLR-305MCA47
R42 100 D-I SYNC
D13 SLR-305MCA47
R41 100 REF-VIDEO
D7 SLR-305MCA47
R38 100 TIME CODE
DP17*
DP16*
DP15*
DP14*
DP13*
DP12*
DP11*
DP10*
RL3*
RL2*
RL1*
RL0*
PREVIOUS
S3
D17 1SS119TD
NEXT
S4
D18 1SS119TD
KEYDG1*
STAND BY
S7
D31 1SS119TD
PLAY
S6
D26 1SS119TD
STOP
S5
D21 1SS119TD
KEYDG0*
5V
D28 SLR-305YCA47
D29 SLR-305YCA47
D30 SLR-305YCA47
R54 270
R55 270
PLAY
D22 SLR-305YCA47
D23 SLR-305YCA47
D24 SLR-305YCA47
D25 SLR-305YCA47
R48 270
R49 270
R50 270
R51 270
STOP
D19 SLR-305YCA47
D20 SLR-305YCA47
R46 270
R47 270
PLAY*
STOP*
CN151 14P
STAND-BY* 1
SDG10 2
SDG11 3
SDG12 4
SDG13 5
SDG14 6
SDG15 7
SDG16 8
SDG17 9
SDG20 10
SDG21 11
DP10* 12
DP11* 13
DP12* 14
FROM AU-183,CN102
CN152 15P
DP13* 1
DP14* 2
DP15* 3
DP16* 4
DP17* 5
RL0* 6
RL1* 7
RL2* 8
RL3* 9
KEYDG0* 10
KEYDG1* 11
5V 12
GND 13
STOP* 14
PLAY* 15
FROM AU-183,CN101
TO AU-183,CN101
FROM AU-183,CN101
5V

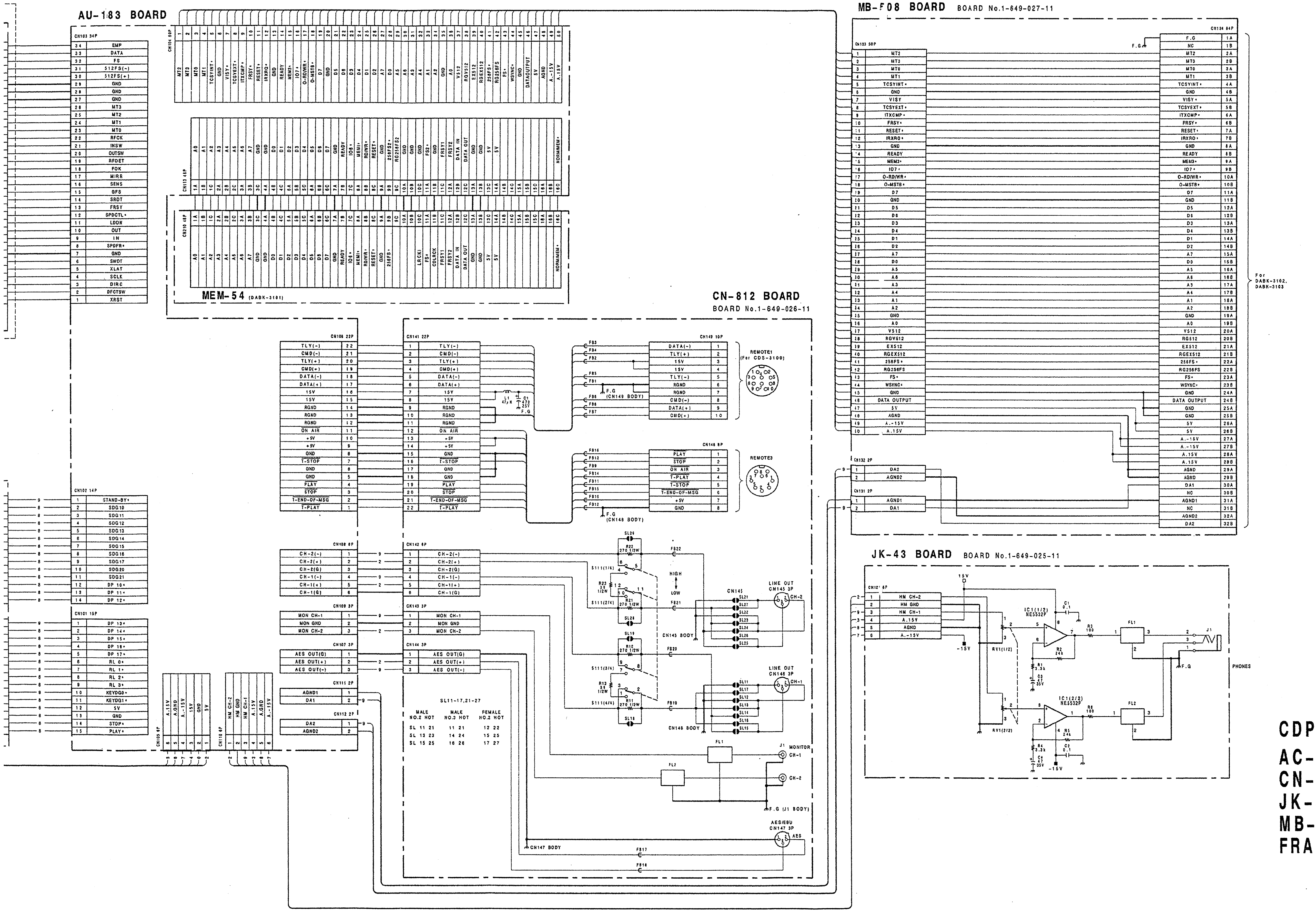
Display and Function Key
DSP-52 BOARD
BOARD NO.1-649-024-11
CDP-3100

AC-146,CN-812,JK-43,MB-508 BOARD,FRAME WIRING
CDP-3100

AC-146,CN-812,JK-43,MB-508 BOARD,FRAME WIRING
CDP-3100


J
P.T
CN161 7P
7 AC 15.5V
6 AC 15.5V
5 AC 15.5V COM
4 AC 11V
3 AC 11V
2 AC 10V
1 AC 10V
FOR J
CN163 3P
2 100
4 AC OUT(N)
CN164 3P
1 120/220-240
4 AC OUT(N)
UC ,AE ,UK
FOR UC,AE,UK
AC-146 BOARD
BOARD No.1-649-023-11
R351 68 1/4W
C351 0.01
C352 1
D351 10E-2
D352 10E-2
D353 10E-2
D354 10E-2
C353 4700 35V
C354 4700 35V
R352 2.2 1/2W
R353 2.2 1/2W
C355 0.01
C356 0.01
IC351 MC7815CT
IC352 MC7915CT
351
352
D362 1SS119TD
D363 1SS119TD
C357 2200 25V
C358 2200 25V
C359 0.01
C360 0.01
15V
-15V
5V
8V
-8V
R354 12 1/4W
C361 0.01
C362 1
D355 RBV-602
C363 10000 25V
PS351
PS352
CP351
C364 2200 10V
C365 0.01
Q351 2SD1944-K
Q352 2SB1370-EF
R355 560
C369 0.01
C367 1000 25V
C368 1000 25V
D360 RD9.1ES-T1B
D361 RD9.1ES-T1B
R357 560
C370 0.01
C371 2200 16V
C373 0.01
C372 2200 16V
C374 0.01
D356 10E-2
D357 10E-2
D358 10E-2
D359 10E-2
C366 4700 25V
R356 4.7 1/2W
F.G
CN165 6P
1 A.15V
2 A.GND
3 A.-15V
4 15V
5 D.GND
6 5V
CN166 5P
1 5V
2 D.GND
3 8V
4 A.GND
5 -8V
C14 0.0047 400V
C15 0.0047 400V
C13 0.0047 400V
C12 0.0047 400V
C11 0.01 400V
T1
C10 0.01 400V
F1
PRIMARY CIRCUITS
CN162 2P
1 AC IN(L)
2 NC
3 AC IN(N)
POWER SW
AC IN
CDM19A-6FA
SV-145 BOARD
MECHA DECK ASSY
CN2 16P
1 SD
2 SG
3 FD-
4 TD+
5 TD-
6 FD+
7 VS
8 VG
9 LDON
10 5V
11 GND
12 RFO
13 FZC
14 FE
15 TE
16 VC
CN4 5P
1 LOADG
2 LOAD
3 INSW
4 GND
5 OUTSW
CN5 4P
1 8V
2 Vcc/2
3 AGND
4 SP
CN1 5P
1 5V
2 GND
3 8V
4 AGND
5 -8V
CN3 34P
1 EMP
2 DATA
3 FS
4 512Fs(-)
5 512Fs(+)
6 GND
7 GND
8 GND
9 MT3
10 MT2
11 MT1
12 MT0
13 RFCK
14 INSW
15 OUTSW
16 RFDET
17 FOK
18 MIRR
19 SENS
20 GFS
21 SRDT
22 FRSY
23 SPDCTL*
24 LDON
25 OUT
26 IN
27 SPDFR*
28 GND
29 SWDT
30 XLAT
31 SCLK
32 DIRC
33 DFCTSW
34 XRST
AU-183 BOARD
CN103 34P
DSP-52 BOARD
CN151 14P
CN102 14P
1 STAND-BY*
2 SDG10
3 SDG11
4 SDG12
5 SDG13
6 SDG14
7 SDG15
8 SDG16
9 SDG17
10 SDG20
11 SDG21
12 DP 10*
13 DP 11*
14 DP 12*
CN152 15P
CN101 15P
1 DP 13*
2 DP 14*
3 DP 15*
4 DP 16*
5 DP 17*
6 RL 0*
7 RL 1*
8 RL 2*
9 RL 3*
10 KEYDG0*
11 KEYDG1*
12 5V
13 GND
14 STOP*
15 PLAY*
CN105 6P

AC-146,CN-812,JK-43,MB-508 BOARD,FRAME WIRING
CDP-3100

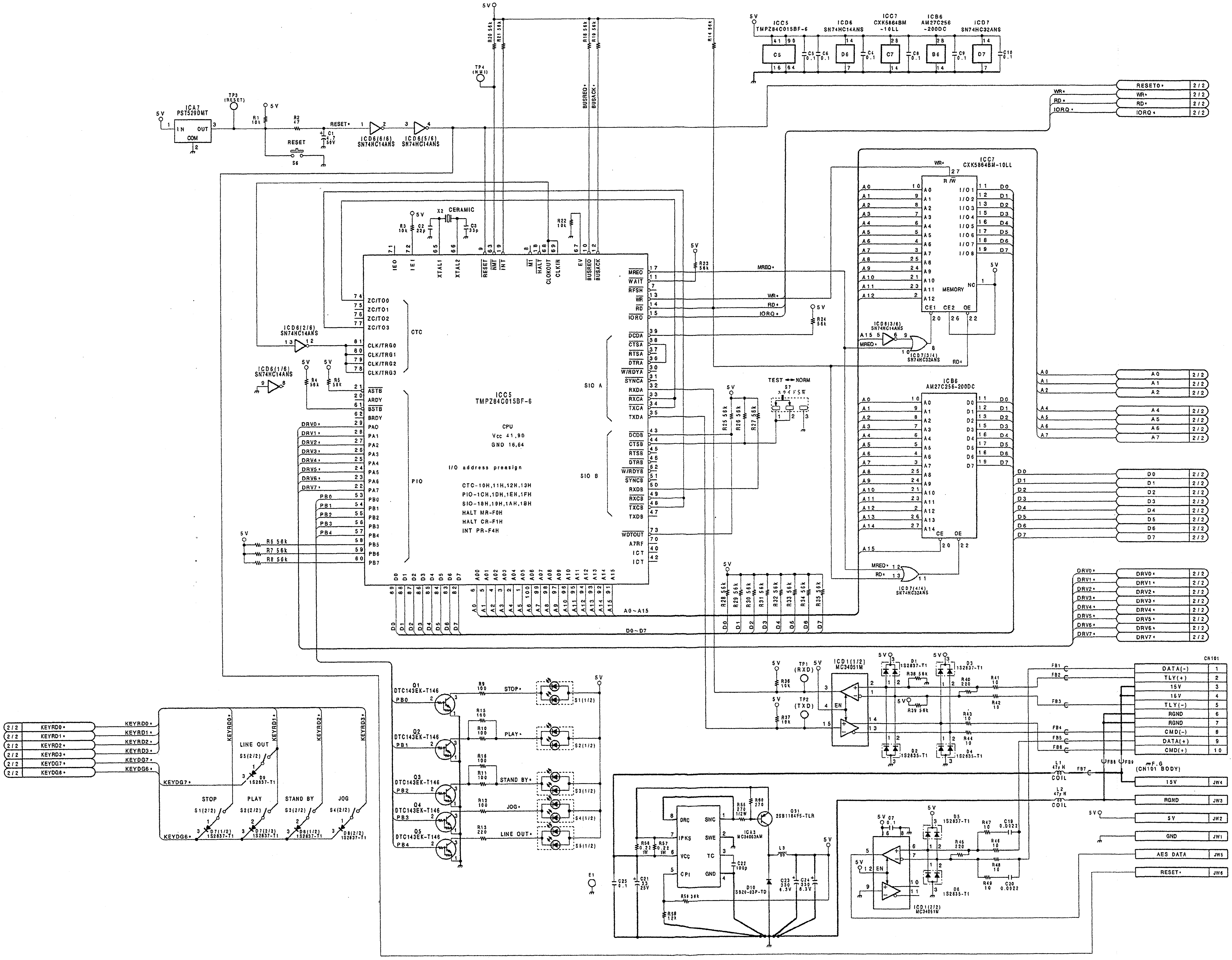

AU-183 BOARD
CN103 34P
CN102 14P
CN101 15P
CN101 50P
CN112 48P
CN210 48P
MEM-54 (DABK-3101)
CN-812 BOARD
BOARD No.1-649-026-11
CN106 22P
CN141 22P
CN149 10P
REMOTE1 (For CDS-3100)
CN148 8P
REMOTE2
CN108 6P
CN142 6P
CN109 3P
CN143 3P
CN107 3P
CN144 3P
CN111 2P
CN112 2P
CN105 6P
CN110 6P
LINE OUT CN145 3P
LINE OUT CN146 3P
CN145 BODY
CN146 BODY
HIGH
LOW
SL11-17,21-27
MALE NO.2 HOT
FEMALE NO.2 HOT
J1 MONITOR CH-1
CH-2
F.G (J1 BODY)
AES/EBU CN147 3P
AES
CN147 BODY
FL1
FL2
MB-508 BOARD BOARD No.1-649-027-11
CN133 50P
CN134 64P
CN132 2P
CN131 2P
For DABK-3102, DABK-3103
JK-43 BOARD BOARD No.1-649-025-11
CN121 6P
IC1(1/2) NE5532P
IC1(2/2) NE5532P
RV1(1/2)
RV1(2/2)
J1
PHONES
F.G

1
2
3
4
5

I J K L M N O P

CDP-3100
AC-146 BOARD
CN-812 BOARD
JK-43 BOARD
MB-508 BOARD
FRAME WIRING

KC-30 BOARD(1/2) CDS-3100 KC-30 BOARD(1/2) CDS-3100

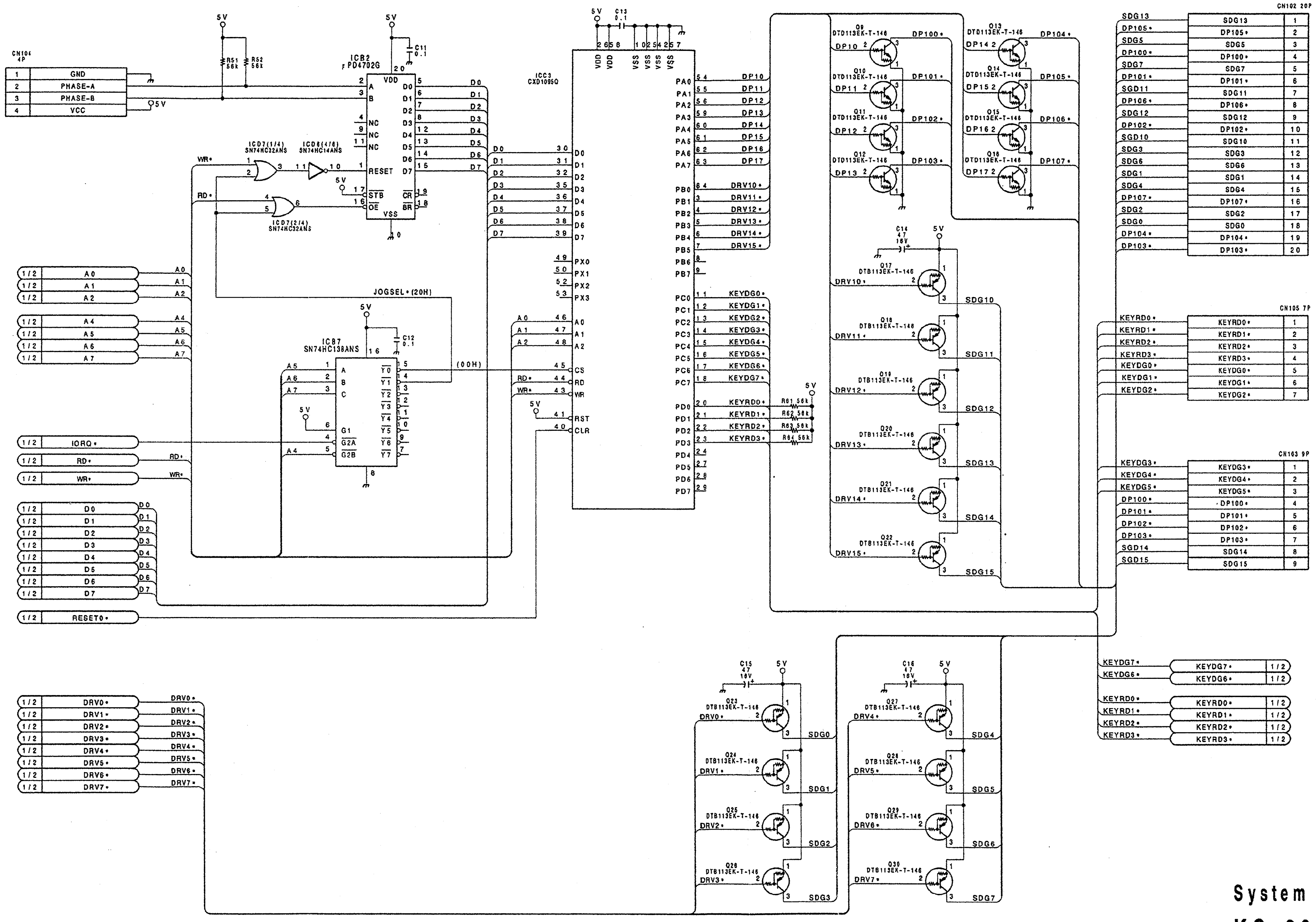


ICA7 PST529DMT
RESET
ICD6(6/6) SN74HC14ANS
ICD6(5/6) SN74HC14ANS
TP3 (RESET)
TP4 (NMI)
X2 CERAMIC
ICC5 TMPZ84C015BF-6
CPU
Vcc 41,90
GND 16,64
I/O address preasign
CTC-10H,11H,12H,13H
PIO-1CH,1DH,1EH,1FH
SIO-18H,19H,1AH,1BH
HALT MR-F0H
HALT CR-F1H
INT PR-F4H
CTC
PIO
SIO A
SIO B
BUSREQ
BUSACK
MREQ
WAIT
RFSH
WR
RD
IORQ
ICC5 TMPZ84C015BF-6
ICD6 SN74HC14ANS
ICC7 CXK5864BM -10LL
ICB6 AM27C256 -200DC
ICD7 SN74HC32ANS
ICC7 CXK5864BM-10LL
MEMORY
ICB6 AM27C256-200DC
ICD6(3/6) SN74HC14ANS
ICD7(3/4) SN74HC32ANS
ICD7(4/4) SN74HC32ANS
ICD6(2/6) SN74HC14ANS
ICD6(1/6) SN74HC14ANS
TEST NORM
S7
RESETO*
WR*
RD*
IORQ*
A0 A1 A2 A4 A5 A6 A7
D0 D1 D2 D3 D4 D5 D6 D7
DRV0* DRV1* DRV2* DRV3* DRV4* DRV5* DRV6* DRV7*
A0~A15
D0~D7
2/2
ICD1(1/2) MC34051M
ICD1(2/2) MC34051M
TP1 (RXD)
TP2 (TXD)
CN101
DATA(-)
TLY(+)
15V
15V
TLY(-)
RGND
RGND
CMD(-)
DATA(+)
CMD(+)
F.G (CN101 BODY)
L1 47μH COIL
L2 47μH COIL
15V JW4
RGND JW3
5V JW2
GND JW1
AES DATA JW5
RESET* JW6
ICA3 MC34063AM
Q31 2SB1184F5-TLR
D10 SB20-03P-TD
E1
Q1 DTC143EK-T146
Q2 DTC143EK-T146
Q3 DTC143EK-T146
Q4 DTC143EK-T146
Q5 DTC143EK-T146
STOP*
PLAY*
STAND BY*
JOG*
LINE OUT*
S1(1/2)
S2(1/2)
S3(1/2)
S4(1/2)
S5(1/2)
KEYRD0* KEYRD1* KEYRD2* KEYRD3* KEYDG7* KEYDG6*
LINE OUT S5(2/2)
STOP S1(2/2)
PLAY S2(2/2)
STAND BY S3(2/2)
JOG S4(2/2)
1S2837-T1
1S2835-T1

System Control

KC-30 BOARD (1/2)

BOARD NO.1-649-029-11
CDS-3100


CN104 4P
GND
PHASE-A
PHASE-B
VCC
5V
R51 56k
R52 56k
IC82 μPD4702G
VDD
VSS
RESET
STB
OE
CR
BR
C11 0.1
IC07(1/4) SN74HC32ANS
IC08(4/6) SN74HC14ANS
IC07(2/4) SN74HC32ANS
WR*
RD*
JOGSEL*(20H)
IC87 SN74HC138ANS
C12 0.1
G1
G2A
G2B
(00H)
IC03 CXD1095Q
C13 0.1
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PX0
PX1
PX2
PX3
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
CS
RD
WR
RST
CLR
A0
A1
A2
A4
A5
A6
A7
D0
D1
D2
D3
D4
D5
D6
D7
1/2
IORQ*
RESET0*
DRV0*
DRV1*
DRV2*
DRV3*
DRV4*
DRV5*
DRV6*
DRV7*
DP10
DP11
DP12
DP13
DP14
DP15
DP16
DP17
DRV10*
DRV11*
DRV12*
DRV13*
DRV14*
DRV15*
KEYDG0*
KEYDG1*
KEYDG2*
KEYDG3*
KEYDG4*
KEYDG5*
KEYDG6*
KEYDG7*
KEYRD0*
KEYRD1*
KEYRD2*
KEYRD3*
R61 56k
R62 56k
R63 56k
R64 56k
Q9
Q10
Q11
Q12
Q13
Q14
Q15
Q16
DTD113EK-T-146
DP100*
DP101*
DP102*
DP103*
DP104*
DP105*
DP106*
DP107*
C14 47 16V
Q17
Q18
Q19
Q20
Q21
Q22
DTB113EK-T-146
SDG10
SDG11
SDG12
SDG13
SDG14
SDG15
C15 47 16V
C16 47 16V
Q23
Q24
Q25
Q26
Q27
Q28
Q29
Q30
SDG0
SDG1
SDG2
SDG3
SDG4
SDG5
SDG6
SDG7
CN102 20P
CN105 7P
CN103 9P

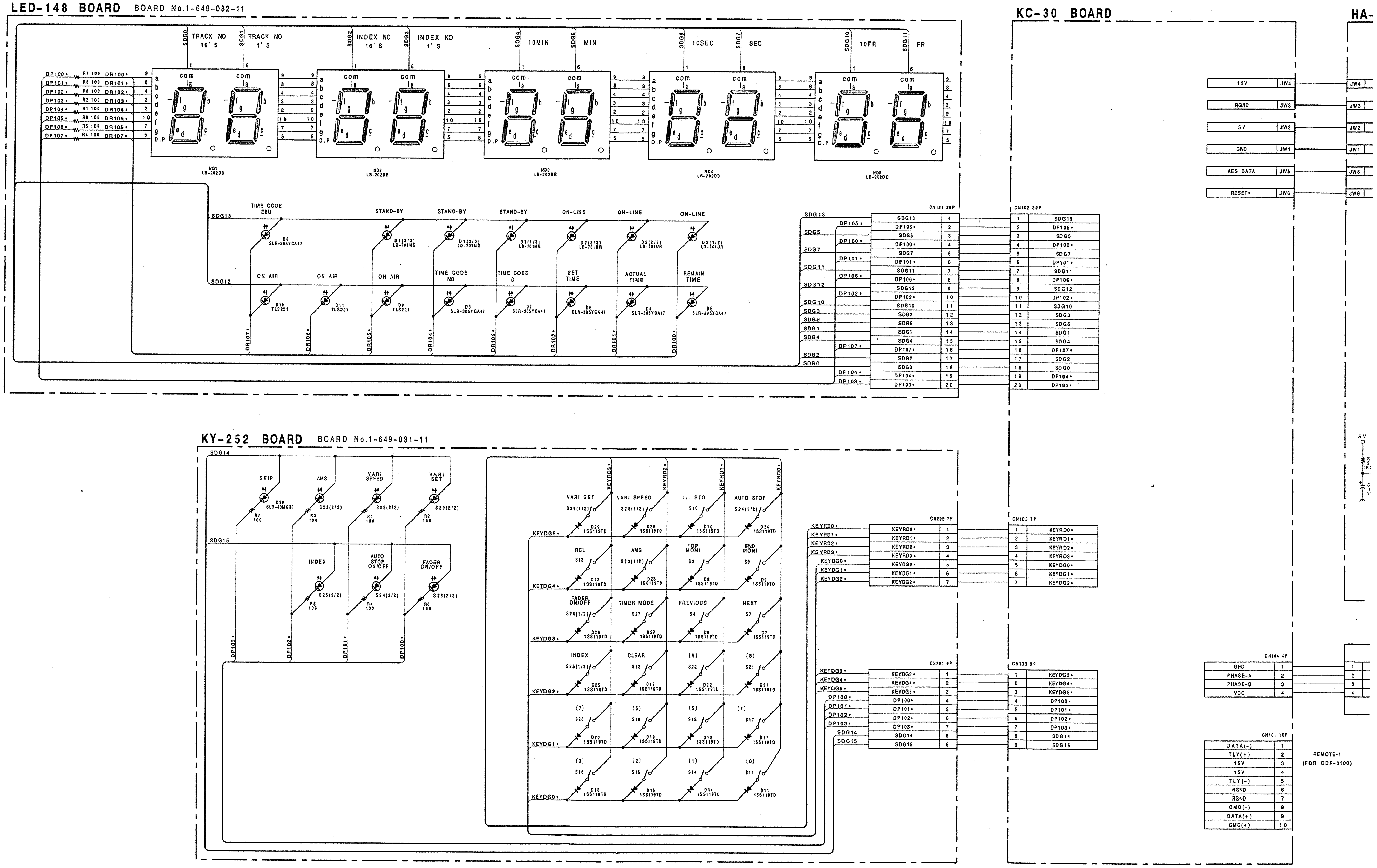
System Control

KC-30 BOARD (2/2)

BOARD NO.1-649-029-11
CDS-3100

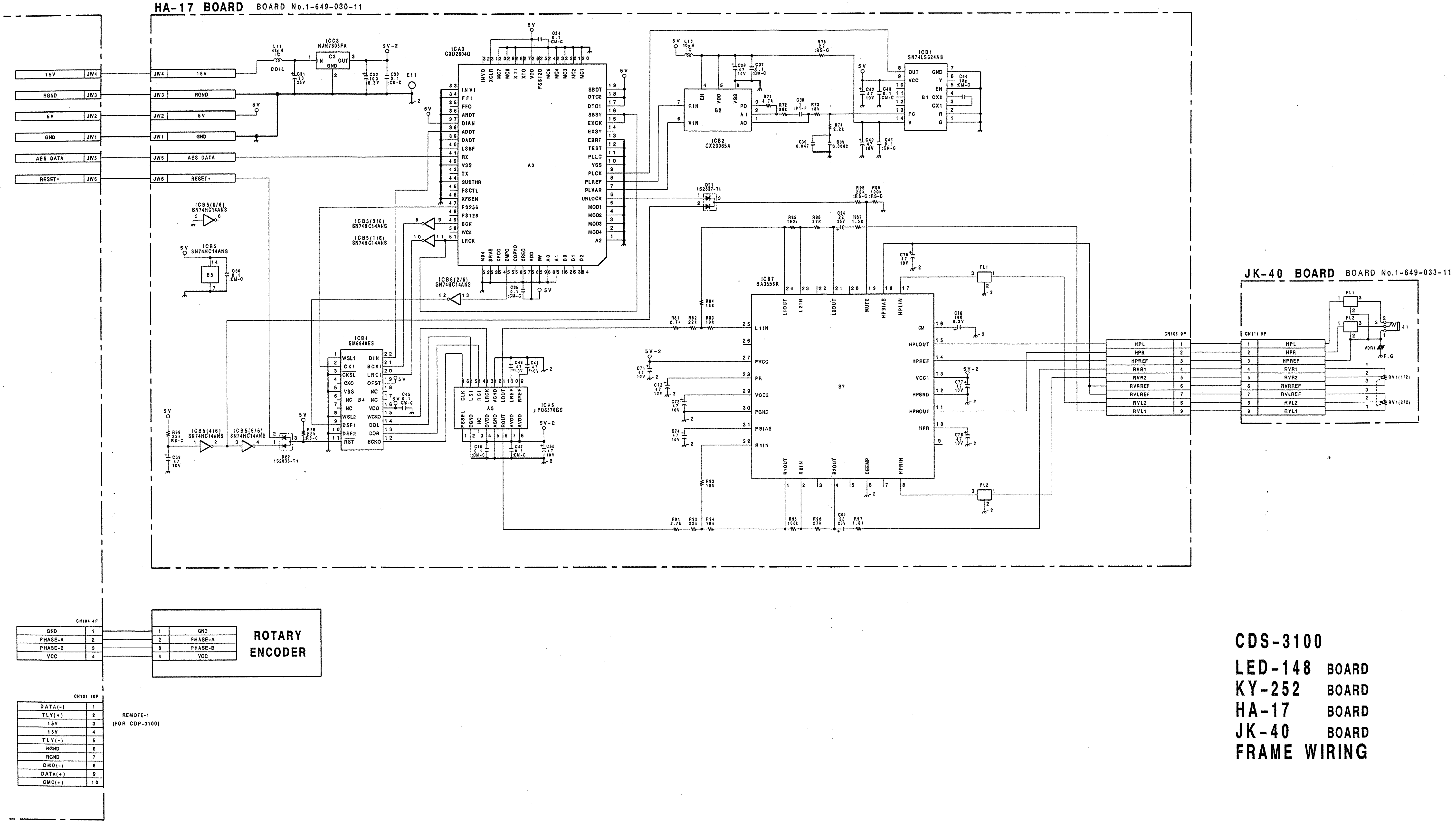
LED-148,KY-252 BOARD,FRAME WIRING
CDS-3100

LED-148,KY-252 BOARD,FRAME WIRING
CDS-3100


LED-148 BOARD BOARD No.1-649-032-11
TRACK NO 10' S
TRACK NO 1' S
INDEX NO 10' S
INDEX NO 1' S
10MIN
MIN
10SEC
SEC
10FR
FR
SDG0
SDG1
SDG2
SDG3
SDG4
SDG5
SDG6
SDG7
SDG10
SDG11
SDG12
SDG13
com
ND1 LB-202DB
ND2 LB-202DB
ND3 LB-202DB
ND4 LB-202DB
ND5 LB-202DB
DP100• R7 100 DR100•
DP101• R6 100 DR101•
DP102• R3 100 DR102•
DP103• R2 100 DR103•
DP104• R1 100 DR104•
DP105• R8 100 DR105•
DP106• R5 100 DR106•
DP107• R4 100 DR107•
TIME CODE EBU
STAND-BY
ON-LINE
ON AIR
TIME CODE ND
TIME CODE D
SET TIME
ACTUAL TIME
REMAIN TIME
D8 SLR-305YCA47
D1(3/3) LD-701MG
D1(2/3) LD-701MG
D1(1/3) LD-701MG
D2(3/3) LD-701UR
D2(2/3) LD-701UR
D2(1/3) LD-701UR
D10 TLS221
D11 TLS221
D9 TLS221
D3 SLR-305YCA47
D7 SLR-305YCA47
D6 SLR-305YCA47
D4 SLR-305YCA47
D5 SLR-305YCA47
CN121 20P
KY-252 BOARD BOARD No.1-649-031-11
SDG14
SDG15
SKIP
AMS
VARI SPEED
VARI SET
D30 SLR-40MG3F
S23(2/2)
S28(2/2)
S29(2/2)
R7 100
R3 100
R1 100
R2 100
INDEX
AUTO STOP ON/OFF
FADER ON/OFF
S25(2/2)
S24(2/2)
S26(2/2)
R5 100
R4 100
R6 100
DP100•
DP101•
DP102•
DP103•
VARI SET S29(1/2) D29 1SS119TD
VARI SPEED S28(1/2) D28 1SS119TD
+/- STO S10 D10 1SS119TD
AUTO STOP S24(1/2) D24 1SS119TD
RCL S13 D13 1SS119TD
AMS S23(1/2) D23 1SS119TD
TOP MONI S8 D8 1SS119TD
END MONI S9 D9 1SS119TD
FADER ON/OFF S26(1/2) D26 1SS119TD
TIMER MODE S27 D27 1SS119TD
PREVIOUS S6 D6 1SS119TD
NEXT S7 D7 1SS119TD
INDEX S25(1/2) D25 1SS119TD
CLEAR S12 D12 1SS119TD
(9) S22 D22 1SS119TD
(8) S21 D21 1SS119TD
(7) S20 D20 1SS119TD
(6) S19 D19 1SS119TD
(5) S18 D18 1SS119TD
(4) S17 D17 1SS119TD
(3) S16 D16 1SS119TD
(2) S15 D15 1SS119TD
(1) S14 D14 1SS119TD
(0) S11 D11 1SS119TD
KEYDG0•
KEYDG1•
KEYDG2•
KEYDG3•
KEYDG4•
KEYDG5•
KEYRD0•
KEYRD1•
KEYRD2•
KEYRD3•
CN202 7P
CN201 9P
KC-30 BOARD
CN102 20P
1 SDG13
2 DP105•
3 SDG5
4 DP100•
5 SDG7
6 DP101•
7 SDG11
8 DP106•
9 SDG12
10 DP102•
11 SDG10
12 SDG3
13 SDG6
14 SDG1
15 SDG4
16 DP107•
17 SDG2
18 SDG0
19 DP104•
20 DP103•
CN105 7P
1 KEYRD0•
2 KEYRD1•
3 KEYRD2•
4 KEYRD3•
5 KEYDG0•
6 KEYDG1•
7 KEYDG2•
CN103 9P
1 KEYDG3•
2 KEYDG4•
3 KEYDG5•
4 DP100•
5 DP101•
6 DP102•
7 DP103•
8 SDG14
9 SDG15
15V JW4
RGND JW3
5V JW2
GND JW1
AES DATA JW5
RESET• JW6
CN104 4P
GND 1
PHASE-A 2
PHASE-B 3
VCC 4
CN101 10P
DATA(-) 1
TLY(+) 2
15V 3
15V 4
TLY(-) 5
RGND 6
RGND 7
CMD(-) 8
DATA(+) 9
CMD(+) 10
REMOTE-1 (FOR CDP-3100)
HA-
5V

HA-17,JK-40 BOARD,FRAME WIRING HA-17,JK-40 BOARD,FRAME WIRING

CDS-3100 CDS-3100


HA-17 BOARD BOARD No.1-649-030-11
JK-40 BOARD BOARD No.1-649-033-11
ROTARY ENCODER
REMOTE-1
(FOR CDP-3100)
CN104 4P
CN101 10P
CN108 9P
CN111 9P
GND
PHASE-A
PHASE-B
VCC
DATA(-)
TLY(+)
15V
TLY(-)
RGND
CMD(-)
DATA(+)
CMD(+)
JW1
JW2
JW3
JW4
JW5
JW6
5V
AES DATA
RESET*
ICC3
NJM7805FA
COIL
ICA3
CXD2604O
A3
ICB2
CX23065A
ICB1
SN74LS624NS
ICB4
SM5840ES
ICA5
PD6376GS
ICB5(1/6)
ICB5(2/6)
ICB5(3/6)
ICB5(4/6)
ICB5(5/6)
ICB5(6/6)
SN74HC14ANS
ICB7
BA3558K
B7
D21
1S2837-T1
D22
1S2835-T1
FL1
FL2
J1
VOR1
F.G
E11
5V-2
HPL
HPR
HPREF
RVR1
RVR2
RVRREF
RVLREF
RVL2
RVL1
RV1(1/2)
RV1(2/2)

CDS-3100

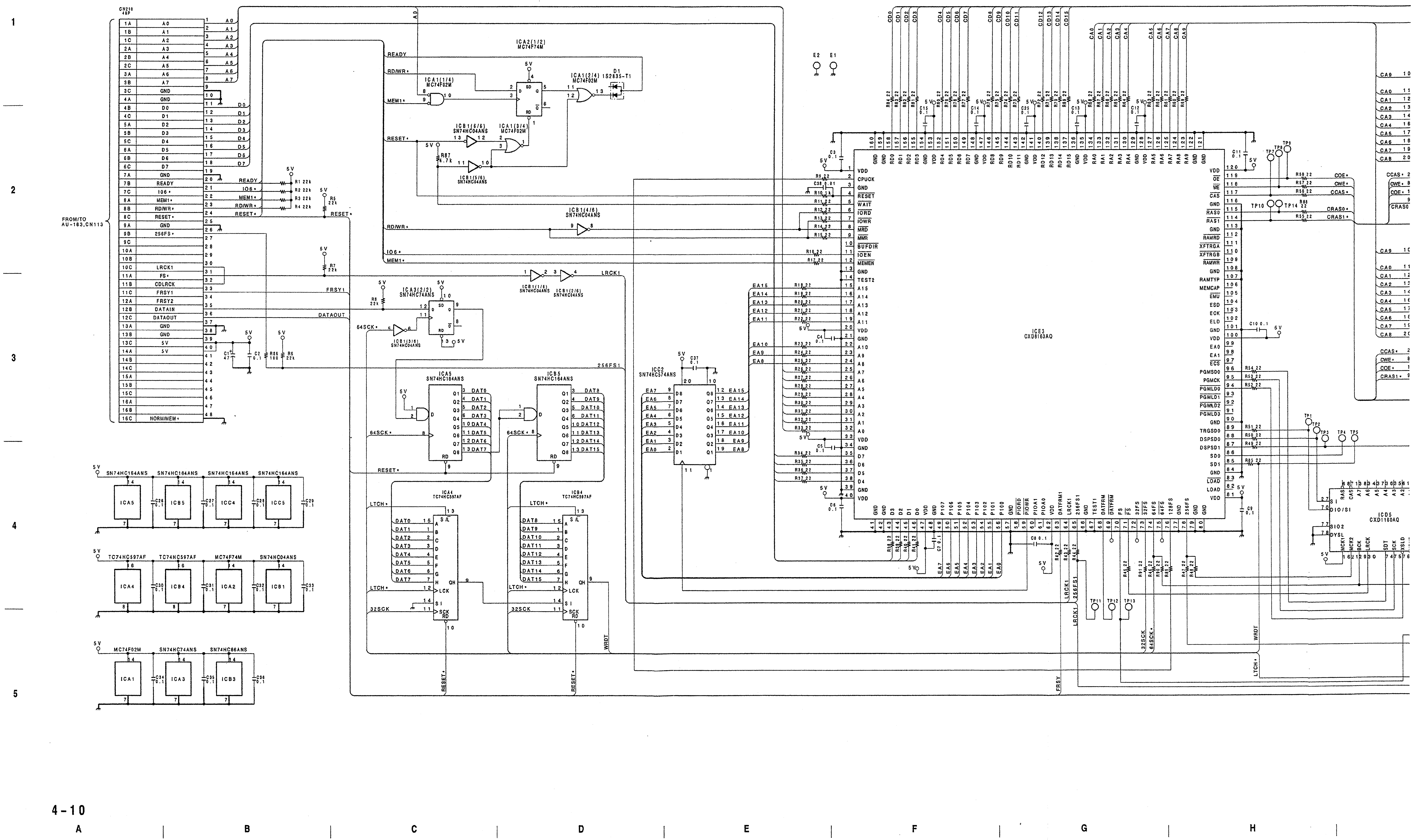
LED-148 BOARD

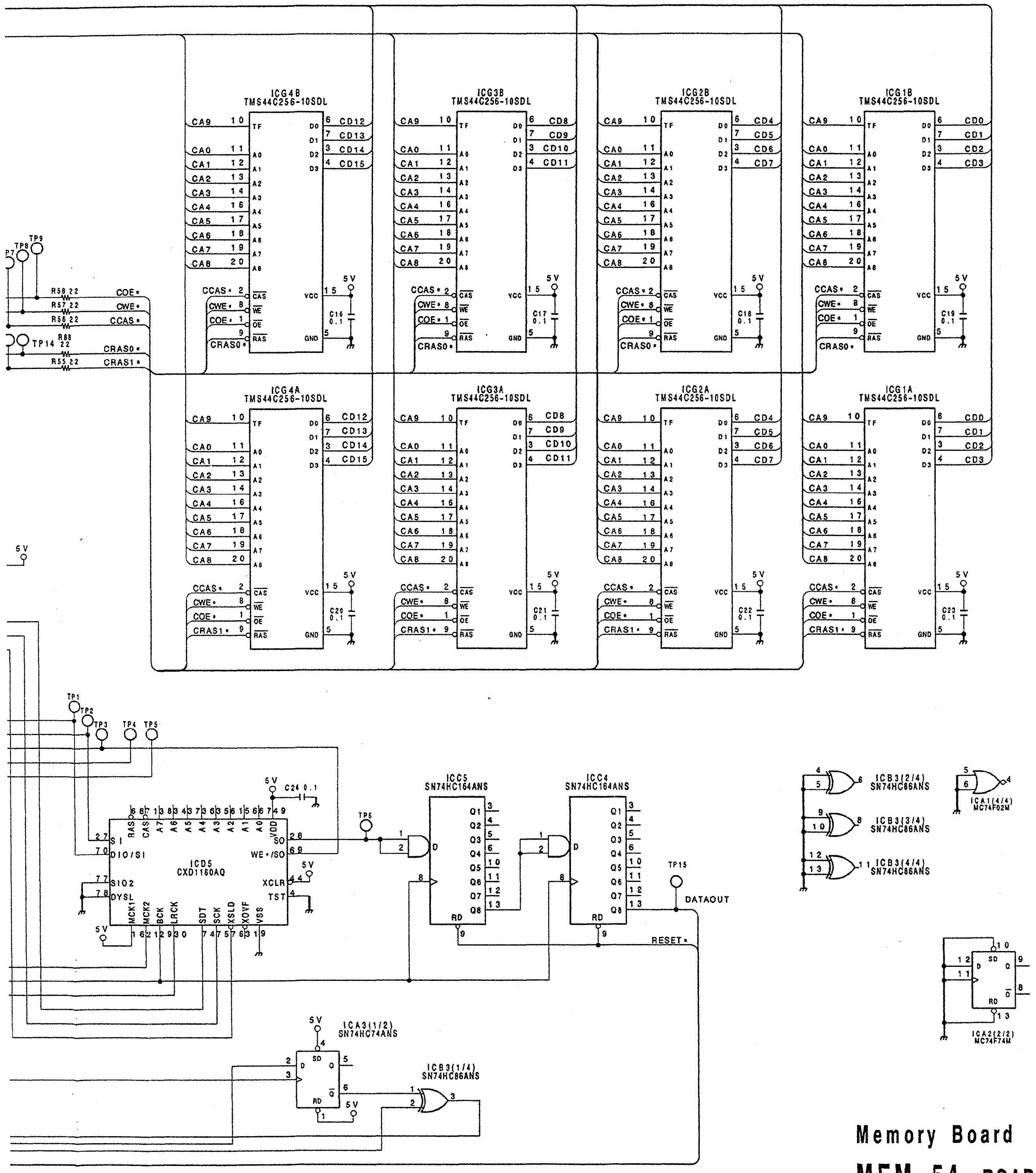
KY-252 BOARD

HA-17 BOARD

JK-40 BOARD

FRAME WIRING


CN210
48P
FROM/TO
AU-163,CN113
A0
A1
A2
A3
A4
A5
A6
A7
GND
D0
D1
D2
D3
D4
D5
D6
D7
READY
IO6*
MEM1*
RD/WR*
RESET*
256FS*
LRCK1
FS*
CDLRCK
FRSY1
FRSY2
DATAIN
DATAOUT
5V
NORM/MEM*
ICA2(1/2)
MC74F74M
ICA1(1/4)
MC74F02M
ICA1(2/4)
ICA1(3/4)
D1
1S2835-T1
ICB1(6/6)
SN74HC04ANS
ICB1(5/6)
ICB1(4/6)
ICB1(1/6)
ICB1(2/6)
ICB1(3/6)
R87
4.7k
ICA3(2/2)
SN74HC74ANS
64SCK*
ICA5
SN74HC164ANS
ICB5
SN74HC164ANS
DAT0
DAT1
DAT2
DAT3
DAT4
DAT5
DAT6
DAT7
DAT8
DAT9
DAT10
DAT11
DAT12
DAT13
DAT14
DAT15
ICA4
TC74HC597AF
ICB4
TC74HC597AF
LTCH*
32SCK
WRDT
ICC2
SN74HC574ANS
EA0
EA1
EA2
EA3
EA4
EA5
EA6
EA7
EA8
EA9
EA10
EA11
EA12
EA13
EA14
EA15
ICE3
CXD8163AQ
ICD5
CXD1160AQ
E2
E1
TP1
TP2
TP3
TP4
TP5
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
CD0
CD1
CD2
CD3
CD4
CD5
CD6
CD7
CD8
CD9
CD10
CD11
CD12
CD13
CD14
CD15
CA0
CA1
CA2
CA3
CA4
CA5
CA6
CA7
CA8
CA9
COE*
CWE*
CCAS*
CRAS0*
CRAS1*
SN74HC164ANS
TC74HC597AF
MC74F74M
SN74HC04ANS
MC74F02M
SN74HC74ANS
SN74HC86ANS
ICA5
ICB5
ICC4
ICC5
ICA4
ICB4
ICA2
ICB1
ICA1
ICA3
ICB3
A
B
C
D
E
F
G
H
1
2
3
4
5


ICG4B
TMS44C256-10SDL
ICG3B
TMS44C256-10SDL
ICG2B
TMS44C256-10SDL
ICG1B
TMS44C256-10SDL
ICG4A
TMS44C256-10SDL
ICG3A
TMS44C256-10SDL
ICG2A
TMS44C256-10SDL
ICG1A
TMS44C256-10SDL
CA0 CA1 CA2 CA3 CA4 CA5 CA6 CA7 CA8 CA9
CCAS* CWE* COE* CRAS0* CRAS1*
CD0 CD1 CD2 CD3 CD4 CD5 CD6 CD7 CD8 CD9 CD10 CD11 CD12 CD13 CD14 CD15
5V
C16 0.1
C17 0.1
C18 0.1
C19 0.1
C20 0.1
C21 0.1
C22 0.1
C23 0.1
R58 22
R57 22
R56 22
R55 22
TP7 TP8 TP9 TP14
TP1 TP2 TP3 TP4 TP5 TP6
ICD5
CXD1160AQ
C24 0.1
ICC5
SN74HC164ANS
ICC4
SN74HC164ANS
TP15
DATAOUT
RESET*
ICA3(1/2)
SN74HC74ANS
ICB3(1/4)
SN74HC86ANS
ICB3(2/4)
SN74HC86ANS
ICB3(3/4)
SN74HC86ANS
ICB3(4/4)
SN74HC86ANS
ICA1(4/4)
MC74F02M
ICA2(2/2)
MC74F74M

Memory Board

MEM-54 BOARD

BOARD NO.1-649-434-11
DABK-3101

SECTION 5
SEMICONDUCTOR PIN ASSIGNMENTS

ここに記載されているIC, トランジスタ, ダイオードはそれぞれの機能を等価的に表したものです。したがって互換性を表すものではありません。（互換性のない型名が併記されている事もあります。）部品の交換をするときは, SPARE PARTSの章を参照して下さい。

ICs, transistors and diodes of which functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

TYPE PAGE

<DIODE>

10E-2 5-2
1S2835 5-2
1S2836 5-2
1S2837 5-2
1SS119 5-2
1SS226 5-2

FC52M 5-2

HZS2ALL 5-2

LB-202DB;ORANGE 5-2
LD-701MG;GREEN 5-2
LD-701UR;RED 5-2

MA152WK 5-2

RBV-602 5-2
RD9.1ES 5-2
RD9.1ESL 5-2

SB20-03P 5-2
SLR-305MC3F;
GREEN 5-2
SLR-305VC3F;RED 5-2
SLR-305YC3F;
YELLOW 5-2
SLR-40MG;GREEN 5-2

TLS221;RED 5-2

<TRANSISTOR>

2SA1428 5-3
2SB1184F5 5-3
2SB1370 5-3
2SC3668 5-3
2SD1614 5-3
2SD1621 5-3
2SD1944 5-3

DTA124EK 5-3
DTA144EK 5-3
DTB113EK 5-3
DTC143EK 5-3
DTC144EK 5-3
DTC343TK 5-3
DTD113EK 5-3

PC317 5-3

<IC>

74AC00SJ 5-4
74AC109SJ 5-4
74AC153SJ 5-4
74AC157SJ 5-4
74AC74SJ 5-4
74F138SJ 5-4

AM27C256-200DC 5-5

BA3558K 5-5
BA6287F 5-5

CX23065A 5-5
CXA1372AQ 5-6
CXD1095Q 5-7
CXD1160AQ 5-8
CXD2525Q 5-8
CXD2604Q 5-6
CXD8163AQ 5-10
CXD8277Q 5-12
CXK1024M 5-5
CXK5864BM-10L 5-13
CXK5864BM-10LL 5-13

DMA030S 5-13

LM393PS 5-13

M5203FP 5-13
M5219L 5-14
MB87014APF 5-14
MC34051M 5-14
MC34063AM 5-15
MC74F02M 5-14
MC74F74M 5-15
MC74HC4052F 5-15
MC7815CT 5-15
MC78L05M 5-15
MC7915CT 5-15

NE5532P 5-15
NJM4560M 5-15
NJM7805FA 5-16
NJM78L12A 5-16

PCM69AP-K 5-16

PST529DMT 5-16

RC4558PS 5-15

SM5813AF 5-16
SM5840ES 5-17
SN74HC00ANS 5-4
SN74HC02ANS 5-17
SN74HC04ANS 5-17
SN74HC08ANS 5-17
SN74HC138ANS 5-18
SN74HC14ANS 5-17
SN74HC163ANS 5-18
SN74HC164ANS 5-18
SN74HC175ANS 5-18
SN74HC32ANS 5-18
SN74HC365ANS 5-19
SN74HC393ANS 5-19
SN74HC574ANS 5-19
SN74HC74ANS 5-4
SN74HC86ANS 5-18
SN74HCU04ANS 5-17
SN74LS624NS 5-19

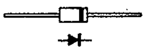
TC74HC123AF 5-19
TC74HC597AF 5-19
TC74HC86AF 5-18
TC74HCT04AF 5-17
TLC272CPS 5-20
TMP82C79M-2 5-21
TMPZ84C015BF-6 5-22
TMS27C512-15JL 5-20
TMS44C256-10SDL 5-20

UPC814G2-1 5-23
UPD43256AGU-
10LL 5-23
UPD4702G 5-23
UPD6376GS 5-25
UPD70320GJ-
8-5BG 5-24
UPD71054GB-3B4 5-25
UPD71059GB-3B4 5-26

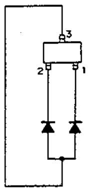
等価回路はICメーカーのData Bookに従いました。

The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

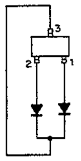
<DIODE>



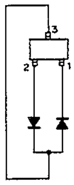
10E-2
1SS119



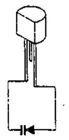
1S2835
1S2836



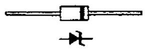
1S2837
MA152WK



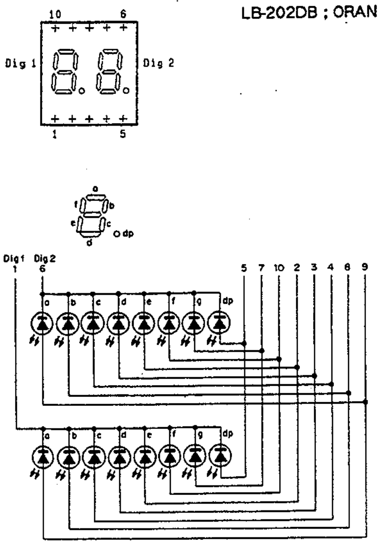
1SS226



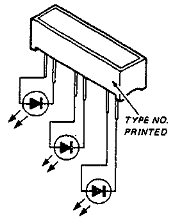
FC52M



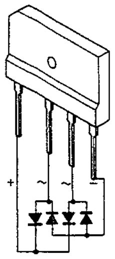
HZS ? ?ALL
RD ? ?ES
RD ? ?ESL


10
6
Dig 1
Dig 2
1
5
a
b
c
d
e
f
g
dp
Dig1
Dig2
1
6
5
7
10
2
3
4
8
9

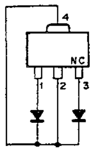
LB-202DB ; ORANGE


TYPE NO. PRINTED

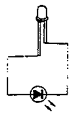
LD-701MG ; GREEN
LD-701UR ; RED



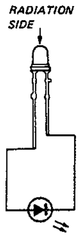
RBV-602



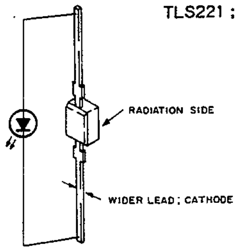
SB20-03P



SLR-305MC3F ; GREEN
SLR-305VC3F ; RED
SLR-305YC3F ; YELLOW

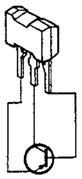

RADIATION SIDE

SLR-40MG ; GREEN

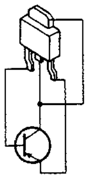

RADIATION SIDE
WIDER LEAD ; CATHODE

TLS221 ; RED

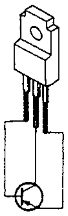
<TRANSISTOR>



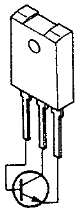
2SA1428



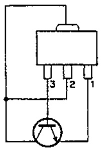
2SB1184F5



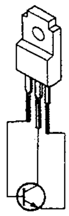
2SB1370



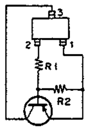
2SC3668



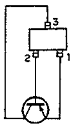
2SD1614
2SD1621



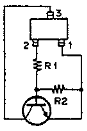
2SD1944



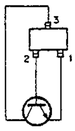
DTA124EK (R1 = 22K, R2 = 22K)
DTA144EK (R1 = 47K, R2 = 47K)



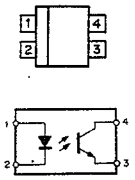
DTB113EK



DTC143EK (R1 = 4.7K, R2 = 4.7K)
DTC144EK (R1 = 47K, R2 = 47K)
DTC343TK (R1 = 4.7K, R2 = ∞)



DTD113EK

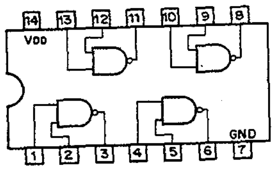


PC317

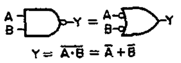
<IC>

74AC00SJ (NS) FLAT PACKAGE
SN74HC00ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT NAND GATES
– TOP VIEW –



14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

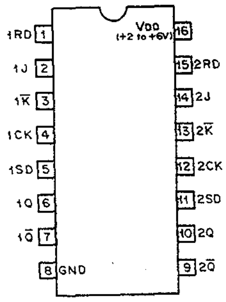
0; LOW LEVEL
1; HIGH LEVEL

NOTE :

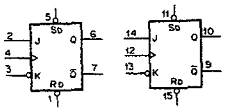
TYPE	V_{DD}
TC74AC00 TYPE TC74VHC00	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

74AC109SJ (NS) FLAT PACKAGE

C-MOS J-K FLIP-FLOP WITH DIRECT SET/RESET
– TOP VIEW –



1RD 1
1J 2
1K̄ 3
1CK 4
1SD 5
1Q 6
1Q̄ 7
8 GND
VDD (+2 to +6V) 16
15 2RD
14 2J
13 2K̄
12 2CK
11 2SD
10 2Q
9 2Q̄



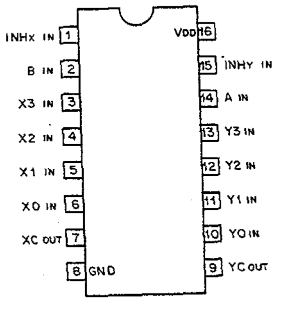
5
SD
2
J
Q
6
4
3
K
RD
Q̄
7
1
11
SD
14
J
Q
10
12
13
K
RD
Q̄
9
15

INPUTS					OUTPUTS	
S_D	R_D	CK	J	$\overline{K}$	Q_{n+1}	$\overline{Q_{n+1}}$
0	1	X	X	X	1	0
1	0	X	X	X	0	1
0	0	X	X	X	1*	1*
1	1	↑	0	1	Q_n	$\overline{Q_n}$
			0	0	0	1
			1	1	1	0
			1	0	$\overline{Q_n}$	Q_n
1	1	0	X	X	Q_n	$\overline{Q_n}$

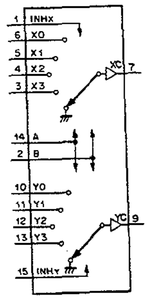
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
*; NONSTABLE

74AC153SJ (NS)

C-MOS DUAL 4-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER
– TOP VIEW –



INHX IN 1
B IN 2
X3 IN 3
X2 IN 4
X1 IN 5
X0 IN 6
XC OUT 7
8 GND
VDD 16
15 INHY IN
14 A IN
13 Y3 IN
12 Y2 IN
11 Y1 IN
10 Y0 IN
9 YC OUT



1 INHX
6 X0
5 X1
4 X2
3 X3
XC 7
14 A
2 B
10 Y0
11 Y1
12 Y2
13 Y3
YC 9
15 INHY

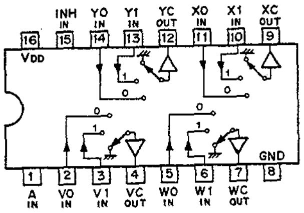
TYPE	V_{DD}
EXCEPT FOL. TYPE	+2 to +6V
74ACT153PC 74ACT153SJ	+5V
TC74AC153P	+2 to +5.5V

CONTROL IN			ON CHANNEL
INH	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	X	X	GND

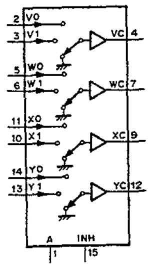
0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE

74AC157SJ (NS) FLAT PACKAGE

C-MOS QUAD 2-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER
– TOP VIEW –



INH IN
Y0 IN
Y1 IN
YC OUT
X0 IN
X1 IN
XC OUT
16
15
14
13
12
11
10
9
VDD
1
0
GND
1
2
3
4
5
6
7
8
A IN
V0 IN
V1 IN
VC OUT
W0 IN
W1 IN
WC OUT



2 V0
3 V1
VC 4
5 W0
6 W1
WC 7
11 X0
10 X1
XC 9
14 Y0
13 Y1
YC 12
A
INH
1
15

NOTE :

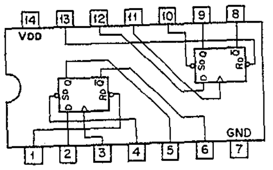
TYPE	V_{DD}
74ACT157	+5V
TC74AC157P TC74AC157F	+2 to +5.5V
OTHER TYPES	+2 to +6V

CONT. IN		ON CHANNEL
INH	A	
0	0	0
0	1	1
1	X	GND

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

74AC74SJ (NS) FLAT PACKAGE
SN74HC74ANS (TI) FLAT PACKAGE

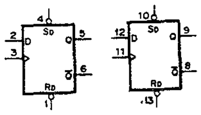
C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET
– TOP VIEW –



14
13
12
11
10
9
8
VDD
SD
Q
Q̄
RD
D
GND
1
2
3
4
5
6
7

INPUTS				OUTPUTS	
$\overline{S_D}$	$\overline{R_D}$	CK	D	Q_{n+1}	$\overline{Q_{n+1}}$
0	1	X	X	1	0
1	0	X	X	0	1
0	0	X	X	1	1
1	1	↑	1	1	0
1	1	↑	0	0	1
1	1	0	X	Q_n	$\overline{Q_n}$

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE



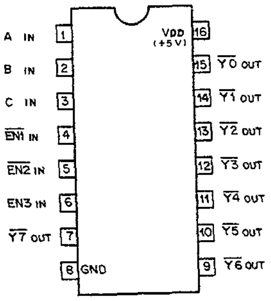
4
SD
2
D
Q
5
3
Q̄
6
RD
1
10
SD
12
D
Q
9
11
Q̄
8
RD
13

NOTE :

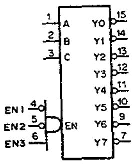
TYPE	V_{DD}
TC74HCT74AF	+5V
TC74AC74 TYPE	+2 to +5.5V
74ACT74 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

74F138SJ (NS) FLAT PACKAGE

TTL 3-TO-8-LINE DECODER/DEMULTIPLEXER
– TOP VIEW –



A IN 1
B IN 2
C IN 3
EN1 IN 4
EN2 IN 5
EN3 IN 6
Y7 OUT 7
8 GND
VDD (+5V) 16
15 Y0 OUT
14 Y1 OUT
13 Y2 OUT
12 Y3 OUT
11 Y4 OUT
10 Y5 OUT
9 Y6 OUT



1 A
2 B
3 C
EN1 4
EN2 5
EN3 6
EN
Y0 15
Y1 14
Y2 13
Y3 12
Y4 11
Y5 10
Y6 9
Y7 7

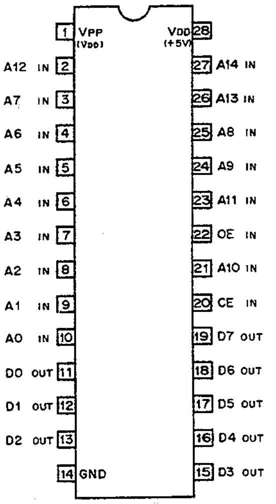
INPUTS				OUTPUTS							
EN	C	B	A	$\overline{Y7}$	$\overline{Y6}$	$\overline{Y5}$	$\overline{Y4}$	$\overline{Y3}$	$\overline{Y2}$	$\overline{Y1}$	$\overline{Y0}$
0	X	X	X	1	1	1	1	1	1	1	1
1	0	0	0	1	1	1	1	1	1	1	0
1	0	0	1	1	1	1	1	1	1	0	1
1	0	1	0	1	1	1	1	1	0	1	1
1	0	1	1	1	1	1	1	0	1	1	1
1	1	0	0	1	1	1	0	1	1	1	1
1	1	0	1	1	1	0	1	1	1	1	1
1	1	1	0	1	0	1	1	1	1	1	1
1	1	1	1	0	1	1	1	1	1	1	1

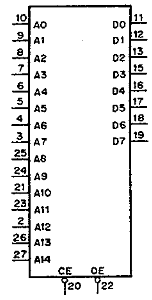
EN = EN1·EN2·EN3

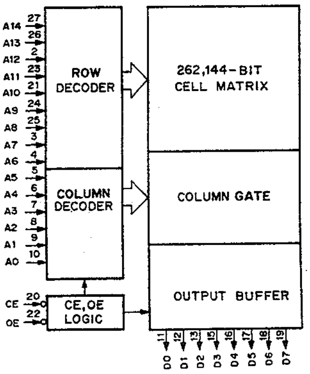
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

AM27C256-200DC (AMD)

C-MOS 256K (32Kx8)-BIT UV ERASABLE PROM WITH 3-STATE OUTPUTS
- TOP VIEW -


1 VPP (VDD)
A12 IN 2
A7 IN 3
A6 IN 4
A5 IN 5
A4 IN 6
A3 IN 7
A2 IN 8
A1 IN 9
A0 IN 10
D0 OUT 11
D1 OUT 12
D2 OUT 13
14 GND
28 VDD (+5V)
27 A14 IN
26 A13 IN
25 A8 IN
24 A9 IN
23 A11 IN
22 OE IN
21 A10 IN
20 CE IN
19 D7 OUT
18 D6 OUT
17 D5 OUT
16 D4 OUT
15 D3 OUT


10 A0
9 A1
8 A2
7 A3
6 A4
5 A5
4 A6
3 A7
25 A8
24 A9
21 A10
23 A11
2 A12
26 A13
27 A14
D0 11
D1 12
D2 13
D3 15
D4 16
D5 17
D6 18
D7 19
CE 20
OE 22


A14 27
A13 26
A12 2
A11 23
A10 21
A9 24
A8 25
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
ROW DECODER
262,144-BIT CELL MATRIX
COLUMN DECODER
COLUMN GATE
OUTPUT BUFFER
CE 20
OE 22
CE, OE LOGIC
11 D0
12 D1
13 D2
15 D3
16 D4
17 D5
18 D6
19 D7

A0 – A14 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 – D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
V_{PP} : PROGRAM POWER SUPPLY

An	CE	OE	VDD	Vpp	Dn	FUNCTION
An	0	0	+5V	+5V	D OUT	READ
An	0	1	+5V	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	+5V	HI-Z	STANDBY
An	0	1	+6V	+12.5V	D IN	PGM
An	1	0	+6V	+12.5V	D OUT	PGM VERIFY(1)
An	0	0	+6V	+12.5V	D OUT	PGM VERIFY(2)
X	1	1	+6V	+12.5V	HI-Z	PGM INH
A0	0	0	+5V	+5V	DEVICE CODE	ELECTRONIC SIGNATURE*

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE
HI-Z: HIGH IMPEDANCE

*SEE FOLLOWING DESCRIPTION.

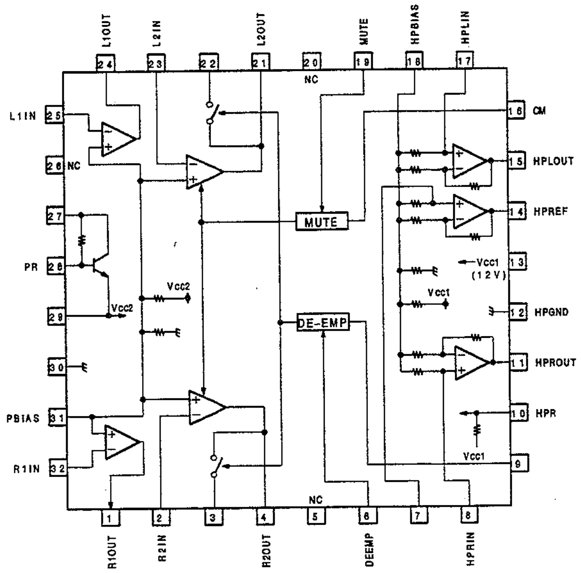
ELECTRONIC SIGNATURE FOR P ROM WRITER
ADDRESS SETTINGS IN READ MODE

A1 – A8	A9	A10 – A13	A14, Vpp
0	12V	0	1

	A0	CODE DATA								
		D7	D6	D5	D4	D3	D2	D1	D0	
MAKER CODE	0	0	0	0	0	0	1	0	0	04H
DEVICE CODE	1	0	1	1	0	0	0	1	0	62H

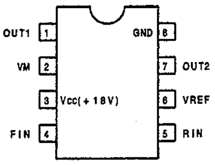
BA3558K (ROHM)

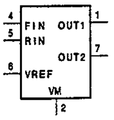
POST AMP FOR COMPACT DISK PLAYER
-TOP VIEW-


L1OUT 24
L2IN 23
22
L2OUT 21
20 NC
MUTE 19
HPBIAS 18
HPLIN 17
L1IN 25
26 NC
27
PR 28
29
30
PBIAS 31
R1IN 32
16 CM
15 HPLOUT
14 HPREF
13
Vcc1 (12V)
12 HPGND
11 HPROUT
10 HPR
9
Vcc1
Vcc2
MUTE
DE-EMP
NC
1 R1OUT
2 R2IN
3
4 R2OUT
5
6 DEEMP
7
8 HPRIN

BA6287F (ROHM) FLAT PACKAGE

POSSIBLE REVERSE MOTOR DRIVER
-TOP VIEW-

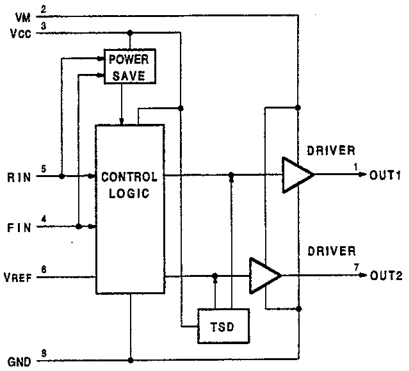

OUT1 1
VM 2
3 Vcc(+18V)
FIN 4
GND 8
7 OUT2
6 VREF
5 RIN


4 FIN
5 RIN
6 VREF
OUT1 1
OUT2 7
VM 2

FIN	RIN	OUT2	OUT1	MODE
H	L	L	H	NORMAL MODE
L	H	H	L	REVERSE MODE
H	H	L	L	BRAKE MODE
L	L	OPEN	OPEN	STAND BY MODE

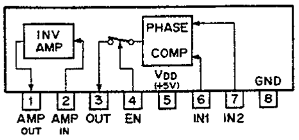
INPUT
FIN ;MODE SELECTION
RIN ;MODE SELECTION
VREF ;REFERENCE VOLTAGE SETTING
VM ;POWER SUPPLY FOR MOTOR

OUTPUT
OUT1,OUT2;MOTOR DRIVE SIGNAL


VM 2
VCC 3
POWER SAVE
RIN 5
FIN 4
VREF 6
GND 8
CONTROL LOGIC
DRIVER
1 OUT1
DRIVER
7 OUT2
TSD

CX23065A (SONY)

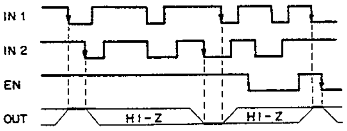
N-MOS PHASE COMPARATOR WITH INVERSION AMPLIFIER
- PRINTED SIDE VIEW -


INV AMP
PHASE COMP
VDD (+5V)
GND
1 AMP OUT
2 AMP IN
3 OUT
4 EN
5
6 IN1
7 IN2
8

EN	OUT
1	ACTIVE
0	HIGH IMPEDANCE

1; HIGH LEVEL
0; LOW LEVEL

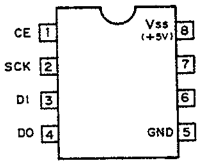
TIMING CHART

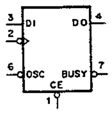


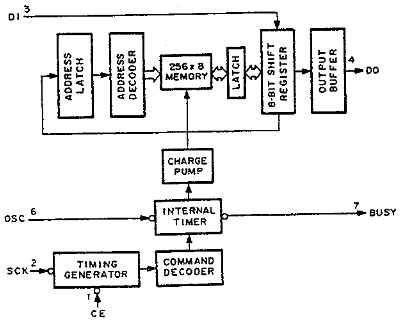
HI-Z ; HI-IMPEDANCE

CXK1024M (SONY) FLAT PACKAGE

MNOS 2K (256x8)-BIT NON-VOLATILE MEMORY
- TOP VIEW -

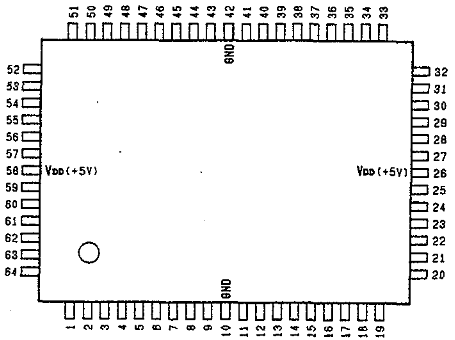

CE 1
SCK 2
DI 3
DO 4
Vss (+5V) 8
7 BUSY
6 OSC
GND 5


3 DI
2
6 OSC
DO 4
BUSY 7
CE
1


DI 3
ADDRESS LATCH
ADDRESS DECODER
256x8 MEMORY
LATCH
8-BIT SHIFT REGISTER
OUTPUT BUFFER
4 DO
CHARGE PUMP
OSC 6
INTERNAL TIMER
7 BUSY
SCK 2
TIMING GENERATOR
COMMAND DECODER
1
CE

CXD2604Q (SONY)

C-MOS DIGITAL AUDIO INTERFACE FOR R-DAT
- TOP VIEW -

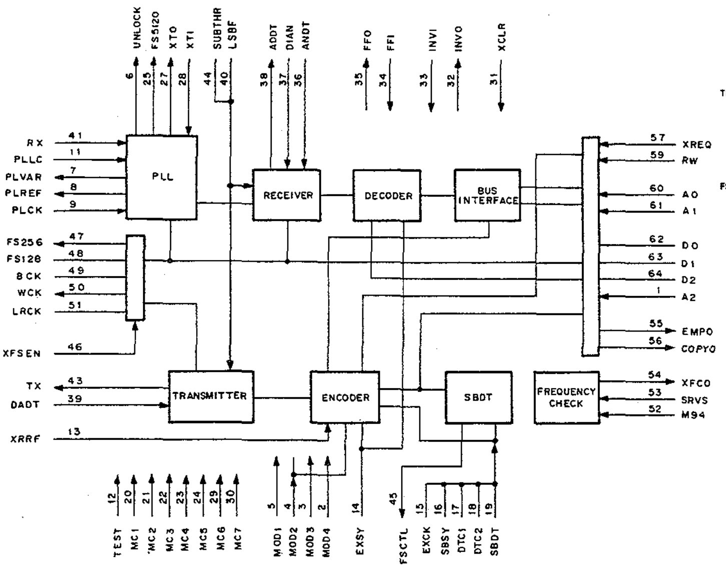

GND
VDD (+5V)
VDD (+5V)
GND

MANUAL MODE

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	VOUT	17	I	CIN	33	I	INVI	49	I/O	BCK
2	I	MOD4	18	I	UIN	34	I	FFI	50	O	WCK
3	I	MOD3	19	I	SBDT	35	O	FFO	51	I/O	LRCK
4	I	MOD2	20	I	MC1	36	I	ANDT	52	I	M94
5	I	MOD1	21	I	MC2	37	I	DIAN	53	I	SRVS
6	O	UNLOCK	22	I	MC3	38	O	ADDT	54	O	XFCO
7	O	PLVAR	23	I	MC4	39	I	DADT	55	O	COUT
8	O	PLREF	24	I	MC5	40	I	LSBF	56	O	UOUT
9	I	PLCK	25	O	FS5120	41	I	RX	57	I	XREQ
10	–	GND	26	–	VDD	42	–	GND	58	–	VDD
11	I	PLLC	27	O	XTO	43	O	TX	59	I	RW
12	I	TEST	28	I	XTI	44	I	SUBTHR	60	O	RLRCK
13	I	VIN	29	I	MC6	45	O	FSCTL	61	O	RWCK
14	O	BLKIDO	30	I	MC7	46	I	XFSEN	62	O	RBCK
15	I	BLKIDI	31	I	XCLR	47	O	FS256	63	O	RFS128
16	I	SBSY	32	O	INVO	48	I/O	FS128	64	O	RFS256

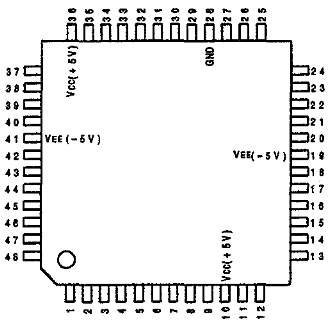
AUTO 1 MODE

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	A2	17	I	DTC1	33	I	INVI	49	I/O	BCK
2	I	MOD4	18	I	DTC2	34	I	FFI	50	O	WCK
3	I	MOD3	19	I	SBDT	35	O	FFO	51	I/O	LRCK
4	I	MOD2	20	I	MC1	36	I	ANDT	52	I	M94
5	I	MOD1	21	I	MC2	37	I	DIAN	53	I	SRVS
6	O	UNLOCK	22	I	MC3	38	O	ADDT	54	O	XFCO
7	O	PLVAR	23	I	MC4	39	I	DADT	55	O	EMPO
8	O	PLREF	24	I	MC5	40	I	LSBF	56	O	COPYO
9	I	PLCK	25	O	FS5120	41	I	RX	57	I	XREQ
10	–	GND	26	–	VDD	42	–	GND	58	–	VDD
11	I	PLLC	27	O	XTO	43	O	TX	59	I	RW
12	I	TEST	28	I	XTI	44	I	SUBTHR	60	I	A0
13	I	ERRF	29	I	MC6	45	O	FSCTL	61	I	A1
14	I/O	EXSY	30	I	MC7	46	I	XFSEN	62	I/O	D0
15	I	EXCK	31	I	XCLR	47	O	FS256	63	I/O	D1
16	I	SBSY	32	O	INVO	48	I/O	FS128	64	I/O	D2


UNLOCK
FS5120
XTO
XTI
SUBTHR
LSBF
ADDT
DIAN
ANDT
FFO
FFI
INVI
INVO
XCLR
RX
PLLC
PLVAR
PLREF
PLCK
PLL
RECEIVER
DECODER
BUS INTERFACE
FS256
FS128
BCK
WCK
LRCK
XFSEN
TX
DADT
XRRF
TRANSMITTER
ENCODER
SBDT
FREQUENCY CHECK
XREQ
RW
AO
A1
DO
D1
D2
A2
EMPO
COPYO
XFCO
SRVS
M94
TEST
MC1
MC2
MC3
MC4
MC5
MC6
MC7
MOD1
MOD2
MOD3
MOD4
EXSY
FSCTL
EXCK
SBSY
DTC1
DTC2
SBDT

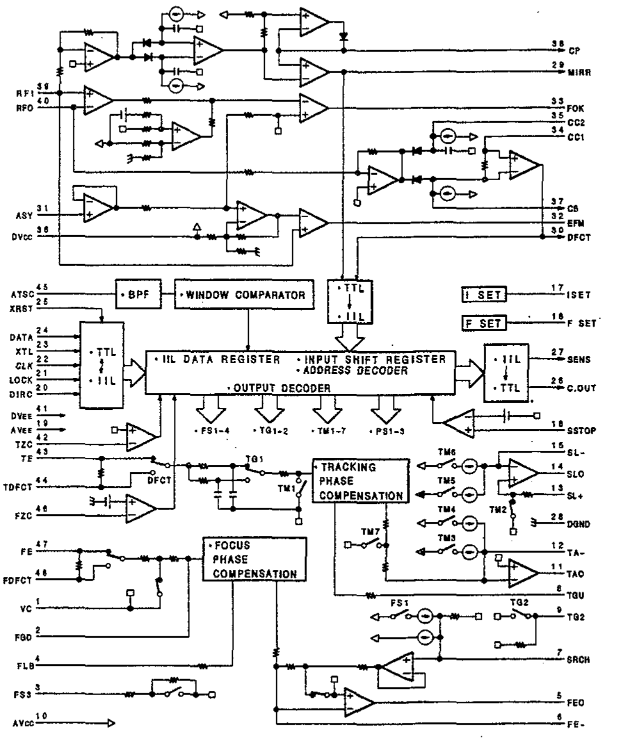
CXA1372AQ (SONY) FLAT PACKAGE

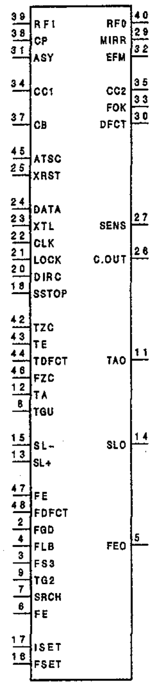
RF SIGNAL PROCESSING SERVO AMP FOR CD PLAYER
-TOP VIEW-


VCC(+5V)
GND
VEE(-5V)
VEE(-5V)
VCC(+5V)

(VDD = +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	VC	13	I	SL+	25	I	XRST	37	I	CB
2	I	FGD	14	O	SLO	26	O	C.OUT	38	I	CP
3	I	FS3	15	I	SL-	27	O	SENS	39	I	RFI
4	I	FLB	16	I	FSET	28	-	GND	40	O	RFO
5	O	FEO	17	I	ISET	29	O	MIRR	41	-	VEE(-5V)
6	I	FE-	18	I	SSTOP	30	O	DFCT	42	I	TZC
7	I	SRCH	19	-	VEE(-5V)	31	I	ASY	43	I	TE
8	I	TGU	20	I	DIRC	32	O	EFM	44	I	TDFCT
9	I	TG2	21	I	LOCK	33	O	FOK	45	I	ATSC
10	-	VCC(+5V)	22	I	CLK	34	I	CC1	46	I	FZC
11	O	TAO	23	I	XLT	35	O	CC2	47	I	FE
12	I	TA-	24	I	DATA	36	-	VCC(+5V)	48	I	FDFCT


CP
MIRR
RFI
RFO
FOK
CC2
CC1
CB
ASY
EFM
DVCC
DFCT
ATSC
XRST
BPF
WINDOW COMPARATOR
TTL
IIL
I SET
ISET
F SET
F SET
DATA
XTL
CLK
LOCK
DIRC
IIL DATA REGISTER
INPUT SHIFT REGISTER
ADDRESS DECODER
OUTPUT DECODER
SENS
C.OUT
DVEE
AVEE
TZC
TE
FS1-4
TG1-2
TM1-7
PS1-3
SSTOP
TDFCT
DFCT
TG1
TM1
TRACKING PHASE COMPENSATION
TM6
TM5
TM4
TM3
TM2
TM7
SL-
SLO
SL+
DGND
TA-
TAO
TGU
FZC
FE
FDFCT
FOCUS PHASE COMPENSATION
VC
FGD
FLB
FS3
AVCC
FS1
TG2
SRCH
FEO
FE-


39 RFI
38 CP
31 ASY
34 CC1
37 CB
45 ATSC
25 XRST
24 DATA
23 XTL
22 CLK
21 LOCK
20 DIRC
18 SSTOP
42 TZC
43 TE
44 TDFCT
46 FZC
12 TA
8 TGU
15 SL-
13 SL+
47 FE
48 FDFCT
2 FGD
4 FLB
3 FS3
9 TG2
7 SRCH
6 FE
17 ISET
16 FSET
RFO 40
MIRR 29
EFM 32
CC2 35
FOK 33
DFCT 30
SENS 27
C.OUT 26
TAO 11
SLO 14
FEO 5

INPUT

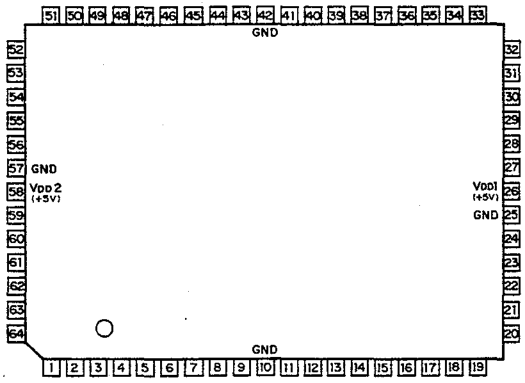
ASY ;INPUT PIN OF AUTO ASYMMETRY CONTROL.
CB ;CONNECTION PIN OF DEFECT BOTTOM HOLD CAPACITOR.
CC1 ;OUTPUT PIN OF DEFECT BOTTOM HOLD.
CLK ;*SERIAL DATA TRANSFER CLOCK INPUT FROM CPU.*
CP ;CONNECTING PIN OF MIRR HOLD CONDENSER. NON-INVERTED INPUT PIN OF MIRR COMPARATOR.
DATA ;SERIAL DATA INPUT FROM CPU.
DIRC ;PIN FOR ONE-TRACK JUMP.CONTAINS A 47kΩ PULL-UP RESISTOR.
FDFCT;CAPACITOR CONNECTING PIN FOR TIME CONSTANT DURING DEFECT FUNCTIONS.
FE ;INPUT PIN OF FOCUS ERROR.
FE- ;INVERSE INPUT PIN FOR FOCUS AMPLIFIER.
FGD ;CONNECT A CAPACITOR BETWEEN THIS PIN AND PIN 3 TO REDUCE HIGH-FREQUENCY GAIN.
FLB ;TIME CONSTANT EXTERNAL PIN TO RAISE THE LOW BANDWIDTH OF THE FOCUS SERVO.
FS3 ;THE HIGH-FREQUENCY GAIN OF THE FOCUS SERVO IS SWITCHED THROUGH FS3 ON AND OFF.
FSET ;PIN TO SET PEAK FREQUENCY OF FOCUS TRACKING PHASE COMPENSATION AND FC OF CLV LPF.
FZC ;PIN FOR FOCUS ZERO-CROSS COMPARATOR INPUT.
ISET ;CURRENT IS INPUT TO DETERMINE FOCUS SEARCH, TRACK JUMP,AND SLED KICK HEIGHT.
LOCK ;AT' L' SLED RUNAWAY PREVENTION CIRCUIT OPERATES. CONTAINS A 47kΩ PULL-UP RESISTOR.
RFI ;INPUT PIN WITH COUPLING CAPACITOR WHERE RF SUMMING AMPLIFIER OUTPUT IS CONNECTED.
SL+ ;NON-INVERSE INPUT PIN FOR SLED AMPLIFIER.
SL- ;INVERSE INPUT PIN FOR SLED AMPLIFIER.
SRCH ;TIME CONSTANT EXTERNAL PIN FOR THE FORMATION OF FOCUS SEARCH WAVEFORMS.
SSTOP;*LIMIT SW ON/OFF SIGNAL DETECTION PIN FOR* DISC INNER PERIPHERY DETECTION.
TA- ;INVERSE INPUT PIN FOR TRACKING AMPLIFIER.
TDFCT;CAPACITOR CONNECTING PIN FOR TIME CONSTANT DURING DEFECTS.
TE ;INPUT PIN OF TRACKING ERROR AMPLIFIER.
TG2 ;TIME CONSTANT EXTERNAL PIN FOR THE SELECTION OF TRACKING HIGH BAND GAIN.
TGU ;TIME CONSTANT EXTERNAL PIN FOR THE SELECTION OF TRACKING HIGH BAND GAIN.
TZC ;*INPUT PIN* OF TRACKING ZERO-CROSS COMPARATOR.
VC ;CENTER VOLTAGE INPUT PIN
FOR DUAL POWER:GND
FOR SINGLE POWER SUPPLY:(Vcc + GND)/2
XLT ;LATCH INPUT FROM CPU.
XRST ;RESET INPUT PIN,RESET AT' L'

OUTPUT

CC2 ;INPUT PIN FOR THE CAPACITANCE COUPLED OUTPUT OF DEFECT BOTTOM HOLD.
C.OUT;TRACK NUMBER COUNT SIGNAL OUTPUT.
DFCT ;OUTPUT PIN OF DEFECT COMPARATOR.
EFM ;OUTPUT PIN OF EFM COMPARATOR.
FEO ;FOCUS DRIVE OUTPUT.
FOK ;OUTPUT PIN OF FOK COMPARATOR.
MIRR ;MIRR COMPARATOR OUTPUT PIN.
RFO ;OUTPUT PIN OF RF SUMMING AMPLIFIER AND CHECK POINT OF EYE PATTERN.
SENS ;OUTPUTS FZC,AS,TZC AND SSTOP THROUGH COMMAND FROM CPU.
SLO ;SLED DRIVE OUTPUT.
TAO ;TRACKING DRIVE OUTPUT.

ATSC ;WINDOW COMPARATOR INPUT PIN FOR ATSC DETECTION.

CXD1095Q (SONY) FLAT PACKAGE
C-MOS I/O PORT EXPANDER
– TOP VIEW –


GND
GND
Vdd2 (+5V)
Vdd1 (+5V)
GND
GND
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
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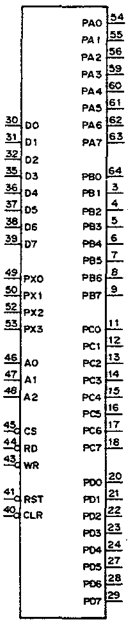
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64

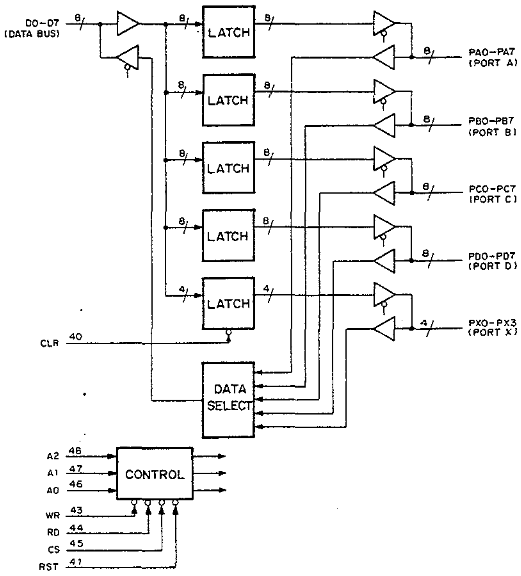
PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL
1			NC	17	○	○	PC6	33			NC	49	○	○	PX0
2			NC	18	○	○	PC7	34			NC	50	○	○	PX1
3	○	○	PB1	19			NC	35	○	○	D3	51			NC
4	○	○	PB2	20	○	○	PD0	36	○	○	D4	52	○	○	PX2
5	○	○	PB3	21	○	○	PD1	37	○	○	D5	53	○	○	PX3
6	○	○	PB4	22	○	○	PD2	38	○	○	D6	54	○	○	PA0
7	○	○	PB5	23	○	○	PD3	39	○	○	D7	55	○	○	PA1
8	○	○	PB6	24	○	○	PD4	40	○		CLR	56	○	○	PA2
9	○	○	PB7	25			GND	41	○		RST	57			GND
10			GND	26	○		Vdd (+5V)	42			GND	58	○		Vdd (+5V)
11	○	○	PC0	27	○	○	PD5	43	○		WR	59	○	○	PA3
12	○	○	PC1	28	○	○	PD6	44	○		RD	60	○	○	PA4
13	○	○	PC2	29	○	○	PD7	45	○		CS	61	○	○	PA5
14	○	○	PC3	30	○	○	D0	46	○		A0	62	○	○	PA6
15	○	○	PC4	31	○	○	D1	47	○		A1	63	○	○	PA7
16	○	○	PC5	32	○	○	D2	48	○		A2	64	○	○	PB0


30 D0
31 D1
32 D2
35 D3
36 D4
37 D5
38 D6
39 D7
49 PX0
50 PX1
52 PX2
53 PX3
46 A0
47 A1
48 A2
45 CS
44 RD
43 WR
41 RST
40 CLR
PA0 54
PA1 55
PA2 56
PA3 59
PA4 60
PA5 61
PA6 62
PA7 63
PB0 64
PB1 3
PB2 4
PB3 5
PB4 6
PB5 7
PB6 8
PB7 9
PC0 11
PC1 12
PC2 13
PC3 14
PC4 15
PC5 16
PC6 17
PC7 18
PD0 20
PD1 21
PD2 22
PD3 23
PD4 24
PD5 27
PD6 28
PD7 29

CS	RD	WR	A2	A1	A0	MODE
0	0	1	0	0	0	PORT A→DATA BUS
0	0	1	0	0	1	PORT B→DATA BUS
0	0	1	0	1	0	PORT C→DATA BUS
0	0	1	0	1	1	PORT D→DATA BUS
0	0	1	1	0	0	PORT X→DATA BUS
0	0	1	1	0	1	——
0	0	1	1	1	0	——
0	0	1	1	1	1	——
0	1	0	0	0	0	DATA BUS→PORT A
0	1	0	0	0	1	DATA BUS→PORT B
0	1	0	0	1	0	DATA BUS→PORT C
0	1	0	0	1	1	DATA BUS→PORT D
0	1	0	1	0	0	DATA BUS→PORT X
0	1	0	1	0	1	——
0	1	0	1	1	0	DATA BUS→CTL REG.1
0	1	0	1	1	1	DATA BUS→CTL REG.2
1	X	X	X	X	X	DATA BUS ; HI–Z

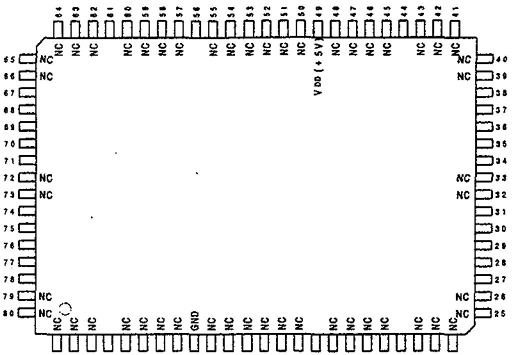
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI–Z, HIGH IMPEDANCE

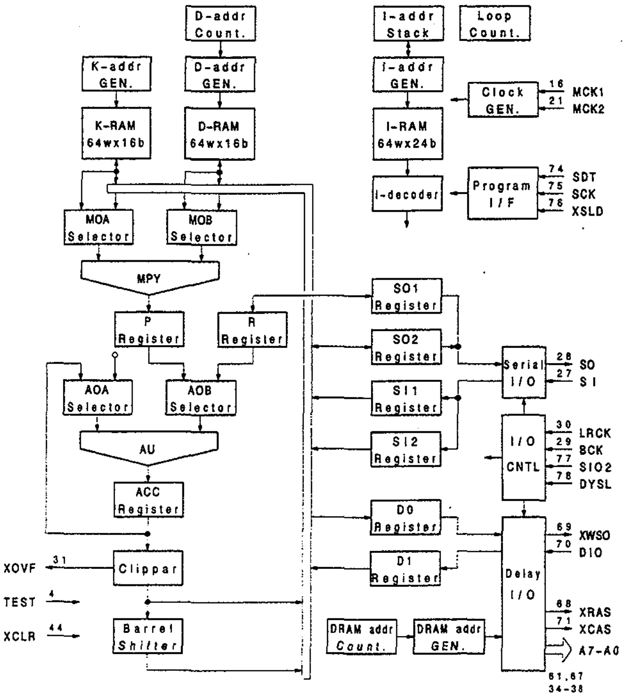
D0–D7 ; DATA BUS INPUTS/OUTPUTS
CS ; CHIP SELECT INPUT
RD ; READ STROBE INPUT
WR ; WRITE STROBE INPUT
A0–A2 ; ADDRESS INPUT
RST ; RESET INPUT
CLR ; CLEAR INPUT
PA0–PA7 ; PORT A INPUTS/OUTPUTS
PB0–PB7 ; PORT B INPUTS/OUTPUTS
PC0–PC7 ; PORT C INPUTS/OUTPUTS
PD0–PD7 ; PORT D INPUTS/OUTPUTS
PX0–PX3 ; PORT X INPUTS/OUTPUTS


D0–D7 (DATA BUS)
8
LATCH
LATCH
LATCH
LATCH
LATCH
4
PA0–PA7 (PORT A)
PB0–PB7 (PORT B)
PC0–PC7 (PORT C)
PD0–PD7 (PORT D)
PX0–PX3 (PORT X)
CLR 40
DATA SELECT
CONTROL
A2 48
A1 47
A0 46
WR 43
RD 44
CS 45
RST 41

CXD1160AQ (SONY)

C-MOS DIGITAL AUDIO SIGNAL PRECESSOR
– TOP VIEW –


VDD (+5V)
NC
GND


D-addr Count.
I-addr Stack
Loop Count.
K-addr GEN.
D-addr GEN.
I-addr GEN.
Clock GEN.
MCK1
MCK2
K-RAM 64wx16b
D-RAM 64wx16b
I-RAM 64wx24b
I-decoder
Program I/F
SDT
SCK
XSLD
MOA Selector
MOB Selector
MPY
SO1 Register
P Register
R Register
SO2 Register
Serial I/O
SO
SI
AOA Selector
AOB Selector
SI1 Register
AU
SI2 Register
I/O CNTL
LRCK
BCK
SIO2
DYSL
ACC Register
D0 Register
XWSO
DIO
XOVF
Clippar
D1 Register
Delay I/O
TEST
XCLR
Barrel Shifter
DRAM addr Count.
DRAM addr GEN.
XRAS
XCAS
A7-A0
61,67
34-38

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	-	NC	21	I	MCK2	41	-	NC	61	O	A2
2	-	NC	22	-	NC	42	-	NC	62	-	NC
3	-	NC	23	-	NC	43	-	NC	63	-	NC
4	I	TST	24	-	NC	44	I	XCLR	64	-	NC
5	-	NC	25	-	NC	45	-	NC	65	-	NC
6	-	NC	26	-	NC	46	-	NC	66	-	NC
7	-	NC	27	I	SI	47	-	NC	67	O	A0
8	-	NC	28	O	SO	48	-	NC	68	O	XRAS
9	-	GND	29	I	BCK	49	-	VDD(+5V)	69	O	XWSO
10	-	NC	30	I	LRCK	50	-	NC	70	I/O	DIO
11	-	NC	31	O	XOVF	51	-	NC	71	O	XCAS
12	-	NC	32	-	NC	52	-	NC	72	-	NC
13	-	NC	33	-	NC	53	-	NC	73	-	NC
14	-	NC	34	O	A6	54	-	NC	74	I	SDT
15	-	NC	35	O	A3	55	-	NC	75	I	SCK
16	I	MCK1	36	O	A4	56	O	A1	76	I	XSLD
17	-	NC	37	O	A5	57	-	NC	77	I	SIO2
18	-	NC	38	O	A7	58	-	NC	78	I	DYSL
19	-	NC	39	-	NC	59	-	NC	79	-	NC
20	-	NC	40	-	NC	60	-	NC	80	-	NC

INPUT

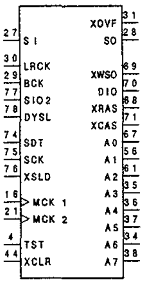
BCK ;SERIAL BIT CLOCK FOR SERIAL INPUT DATA (SI) AND SERIAL OUTPUT DATA (SO)
DYSL ;DELAY I/O MODE SELECT
LRCK ;SAMPLING FREQ. CLOCK
MCK1 ;MASTER CLOCK 1
MCK2 ;MASTER CLOCK 2
SCK ;SERIAL CLOCK FOR SDT
SDT ;SERIAL DATA FROM CPU
SI ;SERIAL DATA(2' s COMPLEMENT)
SIO2 ;BCK CLOCK MODE SELECT (L (GND):32 BIT CLOCK MODE, H (+5V):24 BIT CLOCK MODE)
TST ;FOR TEST
XCLR ;FOR TEST
XSLD ;LATCH FOR SDT(SERIAL DATA) ACTIVE LOW

OUTPUT

A0-A7 ;ADDRESS FOR EXT.DRAM
SO ;SERIAL DATA(2' s COMPLEMENT)
XCAS ;COLUMN ADDRESS STROBE FOR EXT.DRAM
XOVF ;OVERFLOW DETECT
XRAS ;ROW ADDRESS STROBE FOR EXT.DRAM

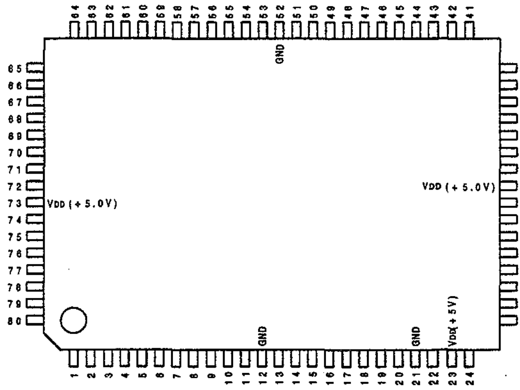
INPUT/OUTPUT

DIO ;SERIAL DATA INPUT(DYSL = L) OR DATA INPUT/OUTPUT FOR EXT.DRAM (DYSL = H)

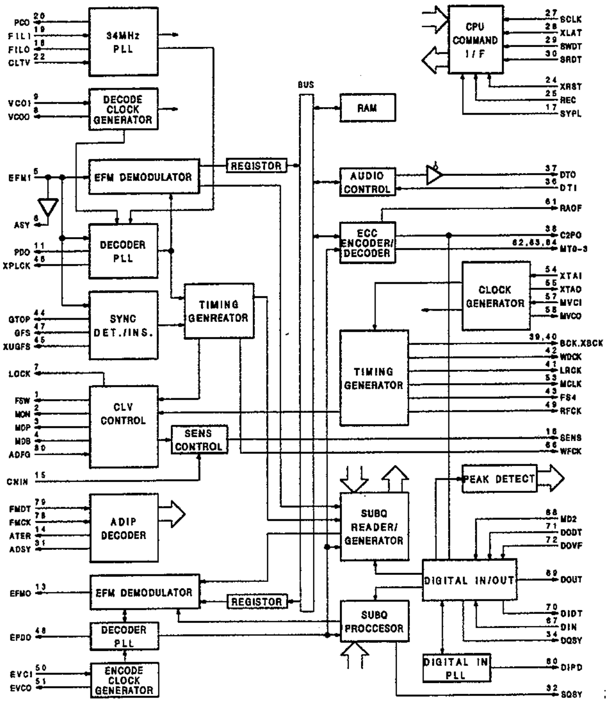

27 SI
30 LRCK
29 BCK
77 SIO2
78 DYSL
74 SDT
75 SCK
76 XSLD
16 MCK 1
21 MCK 2
4 TST
44 XCLR
XOVF 31
SO 28
XWSO 69
DIO 70
XRAS 68
XCAS 71
A0 67
A1 56
A2 61
A3 35
A4 36
A5 37
A6 34
A7 38

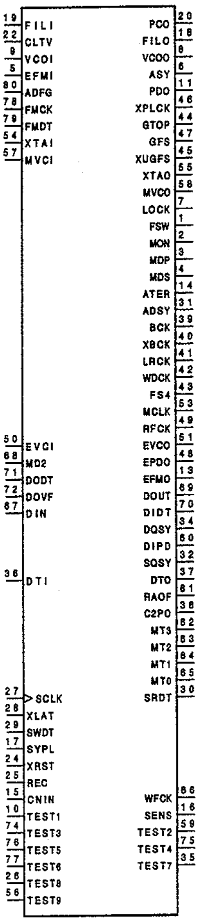
CXD2525Q (SONY)

EFM · ACIRC ENCODER/DECODER
-TOP VIEW-


GND
VDD (+5.0V)
VDD (+5.0V)
GND
GND
VDD(+5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	FSW	21	-	GND	41	O	LRCK	61	O	RAOF
2	O	MON	22	I	CLTV	42	O	WDCK	62	O	MT3
3	O	MDP	23	-	VDD	43	O	FS4	63	O	MT2
4	O	MDS	24	I	XRST	44	O	GTOP	64	O	MT1
5	I	EFMI	25	I	REC	45	O	XUGFS	65	O	MT0
6	O	ASY	26	I	TEST8	46	O	XPLCK	66	O	WFCK
7	O	LOCK	27	I	SCLK	47	O	GFS	67	I	DIN
8	O	VCOO	28	I	XLAT	48	O	EPDO	68	I	MD2
9	I	VCOI	29	I	SWDT	49	O	RFCK	69	O	DOUT
10	I	TEST1	30	O	SRDT	50	I	EVCI	70	O	DIDT
11	O	PDO	31	O	ADSY	51	O	EVCO	71	I	DODT
12	-	GND	32	O	SQSY	52	-	GND	72	I	DOVF
13	O	EFMO	33	-	VDD	53	O	MCLK	73	-	VDD
14	O	ATER	34	O	DQSY	54	I	XTAI	74	I	TEST3
15	I	CNIN	35	O	TEST7	55	O	XTAO	75	O	TEST4
16	O	SENS	36	I	DTI	56	I	TEST9	76	I	TEST5
17	I	SYPL	37	O	DTO	57	I	MVCI	77	I	TEST6
18	O	FILO	38	O	C2PO	58	O	MVCO	78	I	FMCK
19	I	FILI	39	O	BCK	59	O	TEST2	79	I	FMDT
20	O	PCO	40	O	XBCK	60	O	DIPD	80	I	ADFG


PCO 20
FILI 19
FILO 18
CLTV 22
34MHz PLL
VCOI 9
VCOO 8
DECODE CLOCK GENERATOR
EFMI 5
EFM DEMODULATOR
REGISTOR
ASY 6
PDO 11
XPLCK 46
DECODER PLL
GTOP 44
GFS 47
XUGFS 45
SYNC DET./INS.
TIMING GENREATOR
LOCK 7
FSW 1
MON 2
MDP 3
MDS 4
ADFG 80
CLV CONTROL
SENS CONTROL
CNIN 15
FMDT 79
FMCK 78
ATER 14
ADSY 31
ADIP DECODER
EFMO 13
EFM DEMODULATOR
REGISTOR
EPDO 48
DECODER PLL
EVCI 50
EVCO 51
ENCODE CLOCK GENERATOR
BUS
RAM
CPU COMMAND I/F
27 SCLK
28 XLAT
29 SWDT
30 SRDT
24 XRST
25 REC
17 SYPL
AUDIO CONTROL
37 DTO
36 DTI
61 RAOF
ECC ENCODER/DECODER
38 C2PO
62,63,64 MT0-3
CLOCK GENERATOR
54 XTAI
55 XTAO
57 MVCI
58 MVCO
TIMING GENERATOR
39,40 BCK,XBCK
42 WDCK
41 LRCK
53 MCLK
43 FS4
49 RFCK
16 SENS
66 WFCK
PEAK DETECT
SUBQ READER/GENERATOR
68 MD2
71 DODT
72 DOVF
DIGITAL IN/OUT
69 DOUT
SUBQ PROCCESOR
70 DIDT
67 DIN
34 DQSY
DIGITAL IN PLL
60 DIPD
32 SQSY


19 FILI
22 CLTV
9 VCOI
5 EFMI
80 ADFG
78 FMCK
79 FMDT
54 XTAI
57 MVCI
50 EVCI
68 MD2
71 DODT
72 DOVF
67 DIN
36 DTI
27 SCLK
28 XLAT
29 SWDT
17 SYPL
24 XRST
25 REC
15 CNIN
10 TEST1
74 TEST3
76 TEST5
77 TEST6
26 TEST8
56 TEST9
PCO 20
FILO 18
VCOO 8
ASY 6
PDO 11
XPLCK 46
GTOP 44
GFS 47
XUGFS 45
XTAO 55
MVCO 58
LOCK 7
FSW 1
MON 2
MDP 3
MDS 4
ATER 14
ADSY 31
BCK 39
XBCK 40
LRCK 41
WDCK 42
FS4 43
MCLK 53
RFCK 49
EVCO 51
EPDO 48
EFMO 13
DOUT 69
DIDT 70
DQSY 34
DIPD 60
SQSY 32
DTO 37
RAOF 61
C2PO 38
MT3 62
MT2 63
MT1 64
MT0 65
SRDT 30
WFCK 66
SENS 16
TEST2 59
TEST4 75
TEST7 35

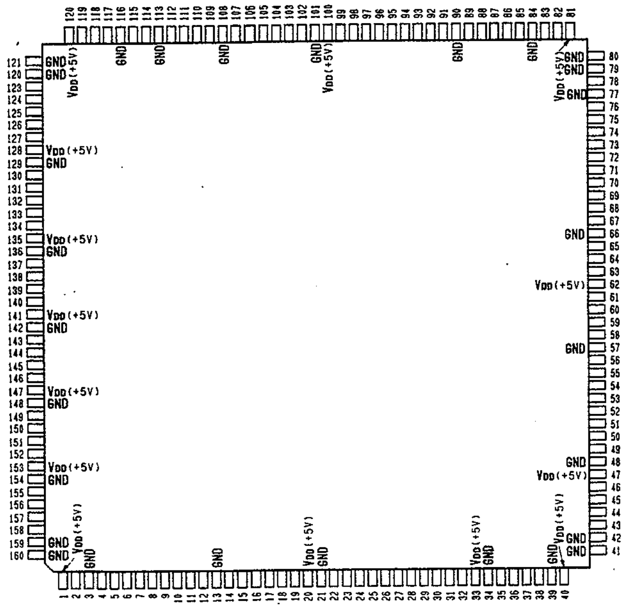
FSW ;SPINDLE MOTOR OUTPUT FILTER SWITCHING OUTPUT
MON ;SPINDLE MOTOR ON/OFF CONTROL OUTPUT,WHEN' H' :ON
MDP ;SPINDLE MOTOR SERVO CONTROL
MDS ;SPINDLE MOTOR SERVO CONTROL
EFMI ;EFM INPUT WHEN PLAYBACK MODE
ASY ;EFM FULL SWING OUTPUT WHEN PLAYBACK MODE
LOCK ;SPINDLE SERVO(CLV)LOCKED STATE MONITOR,WHEN' H' :LOCKED
VCO0 ;EFM DECODER,ANALOG PLL OSCILLATION OUTPUT(196Fs=8.6436MHz)
VCO1 ;EFM DECODER,ANALOG PLL OSCILLATION INPUT
TEST1 ;TEST PIN(NORMALLY SET TO GROUND)
PDO ;EFM DECODER,ANALOG PLL PHASE COMPARISON OUTPUT
EFMO ;EFM OUTPUT WHEN REC MODE
ATER ;ADIP CRC FLAG OUTPUT,WHEN' H' :ERROR
CNIN ;TRACK JUMP NUMBER COUNT SIGNAL INPUT
SENS ;INTERNAL STATUS OUTPUT
SYPL ;POLARITY SWITCHING INPUT PIN OF SQSY,ADSY,AND DQSY
FIFO ;MASTER PLL FILTER OUTPUT FOR DIGITAL PLL
FILI ;MASTER PLL FILTER INPUT FOR DIGITAL PLL
PCO ;MASTER PLL PHASE COMPARISON OUTPUT FOR DIGITAL PLL
CLTV ;MASTER PLL VCO CONTROL VOLTAGE INPUT FOR DIGITAL PLL
XRST ;SYSTEM RESET INPUT(ACTIVE LOW)
REC ;WHEN' L' :DECODER,' H' :ENCODER
TEST8 ;TEST PIN(NORMALLY SET TO GROUND)
SCLK ;SERIAL BUS CLOCK INPUT
XLAT ;SERIAL BUS LATCH INPUT
SWDT ;SERIAL BUS WRITE DATA INPUT
SRDT ;SERIAL BUS READ OUT DATA OUTPUT
ADSY ;ADIP SYNC OUTPUT
SQSY ;SUBCODE Q SYNC OUTPUT
DQSY ;SUBCODE Q SYNC(SCOR)OUTPUT OF DIGITAL IN U-BIT CD FORMAT
TEST7 ;SET TO ' OPEN'
DT1 ;RECORDING AUDIO SIGNAL INPUT
DT0 ;PLAYBACK AUDIO SIGNAL OUTPUT,(REC MODE;HIGH-IMPEDANCE)
C2PO ;SET TO C2PO WHEN PLAYBACK,D.IN-VFLAG WHEN D.REC,A.REC WHEN' 0' .
BCK ;2.8224MHz OUTPUT(MCLK SYSTEM)
XBCK ;BCK INVERSION OUTPUT(MCLK SYSTEM)
LRCK ;44.1kHz(=Fs)(MCLK SYSTEM)
WDCK ;88.2kHz(MCLK SYSTEM)
FS4 ;176.4kHz(MCLK SYSTEM)
GTOP ;WHEN' H' :SYNC GUARD WINDOW OPENS(INPUT EFM SYNC MONITOR OUTPUT)
XUGFS ;WHEN' L' :UNGUARDED FRAME SYNC(INPUT EFM SYNC MONITOR OUTPUT)
XPLCK ;EFM DECODER PLL CLOCK OUTPUT(98Fs=4.3218MHz)

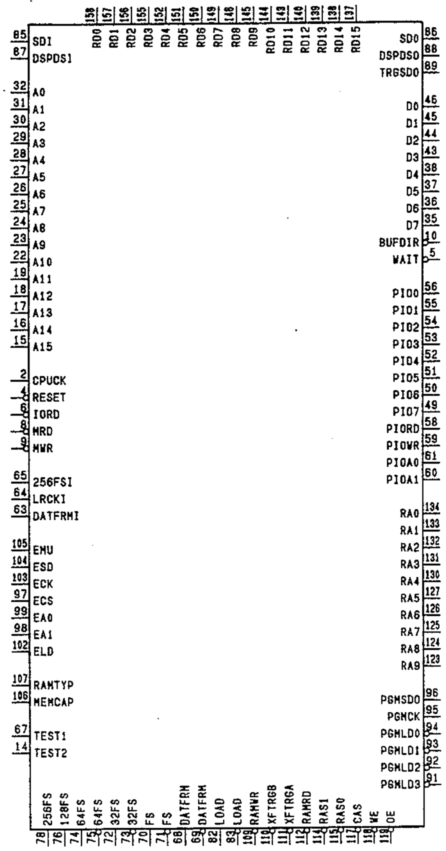
GFS ;WHEN' H' :FRAME SYNC OK(INPUT EFM SYNC MONITOR OUTPUT)
EPDO ;EFM ENCODER EXTERNAL PLL PHASE COMPARISON OUTPUT
RFCK ;7.35kHzOUTPUT(MCLK SYSTEM)
EVC1 ;EFM ENCODER EXTERNAL PLL OSCILLATION INPUT(196Fs=8.6436MHz)
EVC0 ;EFM ENCODER OUTSIDE PLL OSCILLATION OUTPUT(196Fs=8.6436MHz)
MCLK ;22.5792MHzOUTPUT
XTAI ;CRYSTAL OSCILLATION INPUT(512Fs=22.5792MHz)
XTAO ;CRYSTAL OSCILLATION OUTPUT(512Fs=22.5792MHz)
MVCI ;DIGITAL IN PLL OSCILLATION INPUT(512Fs=22.5792MHz)
MVCO ;DIGITAL IN PLL OSCILLATION OUTPUT(512Fs=22.5792MHz)
DIPD ; DIGITAL IN PLL PHASE COMPARISON OUTPUT
RAOF ;RAM OVERFLOW OUTPUT(DECODER MONITOR OUTPUT)
MT0-3 ;CORRECTING STATE MONITOR OUTPUT
WFCK ;7.35kHzOUTPUT.(SET TO EFM DECODER PLL SYSTEM WHEN PLAYBACK,EFM DECODER PLL SYSTEM WHEN RECORDING.)
DIN ;DIGITAL AUDIO INPUT
MD2 ;DIGITAL AUDIO OUTPUT ON/OFF (' H' :ON)
DOUT ;DIGITAL AUDIO OUTPUT
DIDT ;AUDIO DATA OUTPUT OF DIGITAL AUDIO INPUT
DODT ;16-BIT DATA INPUT FOR DIGITAL AUDIO OUTPUT
DOVF ;VALIDITY FLAG INPUT FOR DIGITAL AUDIO OUTPUT
TEST9,3,5,8;FIXED TO ' L'
TEST2,4,7;SET TO ' OPEN'
FMCK ;ADIP READ OUT CLOCK INPUT(6.3kHz)
FMDT ;ADIP DATA INPUT
ADFG ;ADIP CARRIER SIGNAL INPUT

CXD8163AQ (SONY)

C-MOS SOUND MEMORY CONTROL FOR DAT

– TOP VIEW –





VDD = + 5V

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	–	VDD	41	–	GND	81	–	VDD	121	–	GND
2	I	CPUCK	42	–	GND	82	O	LOAD	122	–	GND
3	–	GND	43	I/O	D3	83	O	$\overline{\text{LOAD}}$	123	O	RA9
4	I	$\overline{\text{RESET}}$	44	I/O	D2	84	–	GND	124	O	RA8
5	O	$\overline{\text{WAIT}}$	45	I/O	D1	85	I	SDI	125	O	RA7
6	I	$\overline{\text{IORD}}$	46	I/O	D0	86	O	SDO	126	O	RA6
7	I	$\overline{\text{IOWR}}$	47	–	VDD	87	I	DSPSD1	127	O	RA5
8	I	$\overline{\text{MRD}}$	48	–	GND	88	O	DSPSD0	128	–	VDD
9	I	$\overline{\text{MWR}}$	49	I/O	PIO7	89	O	TRGSD0	129	–	GND
10	O	$\overline{\text{BUFDIR}}$	50	I/O	PIO6	90	–	GND	130	O	RA4
11	I	$\overline{\text{IOEN}}$	51	I/O	PIO5	91	O	$\overline{\text{PGMLD3}}$	131	O	RA3
12	I	$\overline{\text{MEMEN}}$	52	I/O	PIO4	92	O	$\overline{\text{PGMLD2}}$	132	O	RA2
13	–	GND	53	I/O	PIO3	93	O	$\overline{\text{PGMLD1}}$	133	O	RA1
14	I	TEST2	54	I/O	PIO2	94	O	$\overline{\text{PGMLD0}}$	134	O	RA0
15	I	A15	55	I/O	PIO1	95	O	PGMCK	135	–	VDD
16	I	A14	56	I/O	PIO0	96	O	PGMSDO	136	–	GND
17	I	A13	57	–	GND	97	I	ECS	137	I/O	RD15
18	I	A12	58	O	$\overline{\text{PIORD}}$	98	I	EA1	138	I/O	RD14
19	I	A11	59	O	$\overline{\text{PIOWR}}$	99	I	EA0	139	I/O	RD13
20	–	VDD	60	O	PIOA1	100	–	VDD	140	I/O	RD12
21	–	GND	61	O	PIOA0	101	–	GND	141	–	VDD
22	I	A10	62	–	VDD	102	I	ELD	142	–	GND
23	I	A9	63	I	DATFRMI	103	I	ECK	143	I/O	RD11
24	I	A8	64	I	LRCKI	104	I	ESD	144	I/O	RD10
25	I	A7	65	I	256FSI	105	I	$\overline{\text{EMU}}$	145	I/O	RD9
26	I	A6	66	–	GND	106	I	MEMCAP	146	I/O	RD8
27	I	A5	67	I	TEST1	107	I	RAMTYP	147	–	VDD
28	I	A4	68	O	DATFRM	108	–	GND	148	–	GND
29	I	A3	69	O	$\overline{\text{DATFRM}}$	109	O	$\overline{\text{RAMWR}}$	149	I/O	RD7
30	I	A2	70	O	FS	110	O	$\overline{\text{XFTRGB}}$	150	I/O	RD6
31	I	A1	71	O	$\overline{\text{FS}}$	111	O	$\overline{\text{XFTRGA}}$	151	I/O	RD5
32	I	A0	72	O	32FS	112	O	$\overline{\text{RAMRD}}$	152	I/O	RD4
33	–	VDD	73	O	$\overline{\text{32FS}}$	113	–	GND	153	–	VDD
34	–	GND	74	O	64FS	114	O	$\overline{\text{RAS1}}$	154	–	GND
35	I/O	D7	75	O	$\overline{\text{64FS}}$	115	O	$\overline{\text{RAS0}}$	155	I/O	RD3
36	I/O	D6	76	O	128FS	116	–	GND	156	I/O	RD2
37	I/O	D5	77	–	GND	117	O	$\overline{\text{CAS}}$	157	I/O	RD1
38	I/O	D4	78	O	256FS	118	O	$\overline{\text{WE}}$	158	I/O	RD0
39	–	GND	79	–	GND	119	O	$\overline{\text{OE}}$	159	–	GND
40	–	VDD	80	–	GND	120	–	VDD	160	–	GND

INPUT

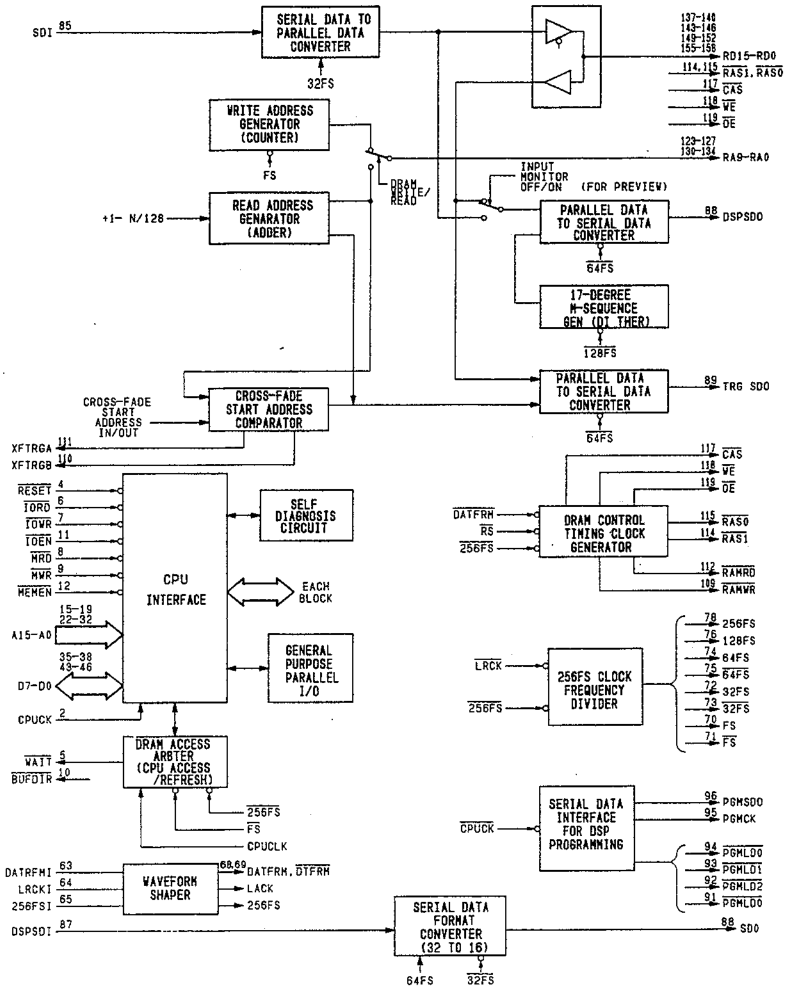
256FSI : MASTER CLOCK (256FS)
A0 – A15 : CPU ADDRESS BUS
CPUCK : CPU CLOCK
DATFRMI : DAT FRAME SIGNAL
DSPSDI : SERIAL DATA INPUT FROM DSP
EA0, 1 : DSP ADDRESS FROM EMMULATOR
ECK : DSP PROGRAM DATA SHIFT CLOCK INPUT FROM EMMULATOR
$\overline{\text{ECS}}$: DSP CHIP SELECT SIGNAL INPUT FROM EMMULATOR
$\overline{\text{ELD}}$: DSP PROGRAM DATA LOAD SIGNAL FROM EMMULATOR
$\overline{\text{EMU}}$: DSP EMMULATION ON/OFF
ESD : DSP PROGRAM SERIAL DATA INPUT FROM EMMULATOR
$\overline{\text{IOEN}}$: CHIP ENABLE SIGNAL IN I/O SPACE
$\overline{\text{IORD}}$: CPU I/O READ SIGNAL
$\overline{\text{IOWR}}$: CPU I/O WRITE SIGNAL
LRCKI : LRCK SIGNAL (FS) WHICH BECOMES "L" WHEN SERIAL DATA LCH, AND "H" WHEN SERIAL DATA RCH.
MEMCAP : MEMORY CAPACITY SELECT
$\overline{\text{MEMEN}}$: CHIP ENABLE SIGNAL IN MEMORY SPACE
$\overline{\text{MRD}}$: CPU MEMORY READ
$\overline{\text{MWR}}$: CPU MEMORY WRITE
RAMTYP : DRAM TYPE SELECT
$\overline{\text{RESET}}$: CPU RESET SIGNAL
SDI : SERIAL DATA INPUT. SERIAL DATA OF MSB FIRST AND 16-BIT/CH
TEST1, TEST2 : TEST (NORMALLY FIXED TO L)

OUTPUT

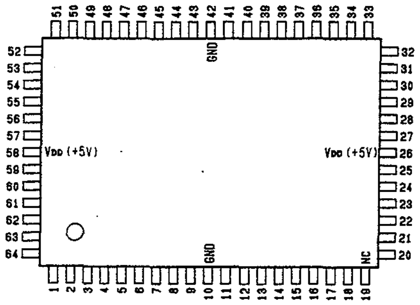
128FS, 64FS, $\overline{\text{64FS}}$, 32FS, $\overline{\text{32FS}}$, FS, $\overline{\text{FS}}$: VARIOUS FREQUENCY-DIVIDED OUTPUT OF 256FS SIGNAL
256FS : 256FS SIGNAL OUTPUT
$\overline{\text{BUFDIR}}$: USED AS DIR SIGNAL WHEN THE BUFFER (TRANCIEVER) IS EXTERNALLY INSTALLED TO THE DATA BUS.
$\overline{\text{CAS}}$: DRAM DRAM COLUMN ADDRESS STROBE SIGNAL OUTPUT
DATFRM, $\overline{\text{DATFRM}}$: DAT FRAME SIGNAL OUTPUT
DSPSDO : SERIAL DATA OUTPUT TO DSP. MSB FIRST 32 BIT/CH SERIAL DATA.
LOAD, $\overline{\text{LOAD}}$: PARALLEL/SERIAL CONVERSION LOAD SIGNAL OUTPUT
$\overline{\text{OE}}$: DRAM OUTPUT ENABLE SIGNAL OUTPUT
PGMCK : SHIFT CLOCK OUTPUT OF DSP PROGRAM DATA
$\overline{\text{PGMLD0}}$ – $\overline{\text{PGMLD3}}$: DSP PROGRAM DATA LOAD SIGNAL OUTPUT
PGMSDO : DSP PROGRAM SERIAL DATA OUTPUT MSB FIRST 8 BITS ARE OUTPUT.
PIOA0, 1 : PARALLEL I/O ADDRESS SIGNAL (NORMALLY FIXED TO L)
$\overline{\text{PIORD}}$: PARALLEL I/O READ SIGNAL (NORMALLY "H")
$\overline{\text{PIOWR}}$: PARALLEL I/O WRITE SIGNAL (NORMALLY "H")
RA0 – RA9 : DRAM ADDRESS OUTPUT
$\overline{\text{RAMRD}}$: DRAM READ MONITOR LED OUTPUT
$\overline{\text{RAMWR}}$: DRAM WRITE MONITOR LED OUTPUT
$\overline{\text{RAS0}}$, $\overline{\text{RAS1}}$: DRAM LOW ADDRESS STROBE SIGNAL OUTPUT
RD0 – RD15 : DRAM DATA BUS
READY : CPU READY ($\overline{\text{WAIT}}$) SIGNAL (NORMALLY "H")
SDO : SERIAL DATA OUTPUT
TRGSDO : TRIGGER SERIAL DATA OUTPUT TO DSP. MSB FIRST 32 BIT/CH SERIAL DATA.
$\overline{\text{WE}}$: DRAM WRITE ENABLE SIGNAL OUTPUT
$\overline{\text{XFTRGB}}$, $\overline{\text{XFTRGA}}$: MONITOR LED OUTPUT OF X'FADE TRIGGER OUTPUT

INPUT/OUTPUT

D0 – D7 : CPU DATA BUS
PIO0 – PIO7 : 8 BIT DATA BUS OF PARALLEL I/O (NORMALLY "Hi-Z")
RD0 – RD15 : DRAM DATA BUS

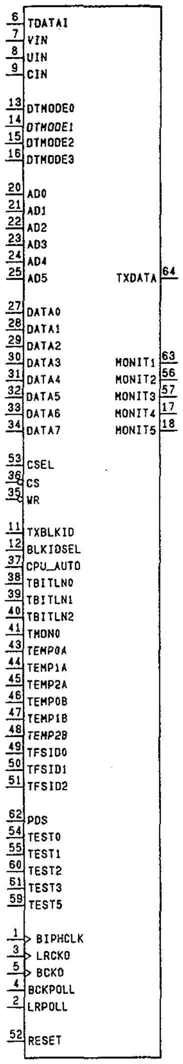

SDI 85
SERIAL DATA TO PARALLEL DATA CONVERTER
32FS
WRITE ADDRESS GENERATOR (COUNTER)
FS
READ ADDRESS GENARATOR (ADDER)
+1- N/128
DRAM WRITE/ READ
INPUT MONITOR OFF/ON (FOR PREVIEW)
137-140 143-146 149-152 155-158 RD15-RD0
114,115 RAS1, RAS0
117 CAS
118 WE
119 OE
123-127 130-134 RA9-RA0
PARALLEL DATA TO SERIAL DATA CONVERTER
88 DSPSDO
64FS
17-DEGREE M-SEQUENCE GEN (DI THER)
128FS
PARALLEL DATA TO SERIAL DATA CONVERTER
89 TRG SDO
64FS
CROSS-FADE START ADDRESS IN/OUT
CROSS-FADE START ADDRESS COMPARATOR
XFTRGA 111
XFTRGB 110
RESET 4
IORD 6
IOWR 7
IOEN 11
MRD 8
MWR 9
MEMEN 12
15-19 22-32
A15-A0
35-38 43-46
D7-D0
CPUCK 2
CPU INTERFACE
SELF DIAGNOSIS CIRCUIT
EACH BLOCK
GENERAL PURPOSE PARALLEL I/O
DRAM ACCESS ARBTER (CPU ACCESS /REFRESH)
WAIT 5
BUFDIR 10
256FS
FS
CPUCLK
DATRFMI 63
LRCKI 64
256FSI 65
WAVEFORM SHAPER
68,69 DATFRM, DTFRM
LACK
256FS
DSPSDI 87
SERIAL DATA FORMAT CONVERTER (32 TO 16)
64FS
32FS
88 SDO
117 CAS
118 WE
119 OE
DATFRM
RS
256FS
DRAM CONTROL TIMING CLOCK GENERATOR
115 RAS0
114 RAS1
112 RAMRD
109 RAMWR
LRCK
256FS
256FS CLOCK FREQUENCY DIVIDER
78 256FS
76 128FS
74 64FS
75 64FS
72 32FS
73 32FS
70 FS
71 FS
CPUCK
SERIAL DATA INTERFACE FOR DSP PROGRAMMING
96 PGMSDO
95 PGMCK
94 PGMLD0
93 PGMLD1
92 PGMLD2
91 PGMLD0

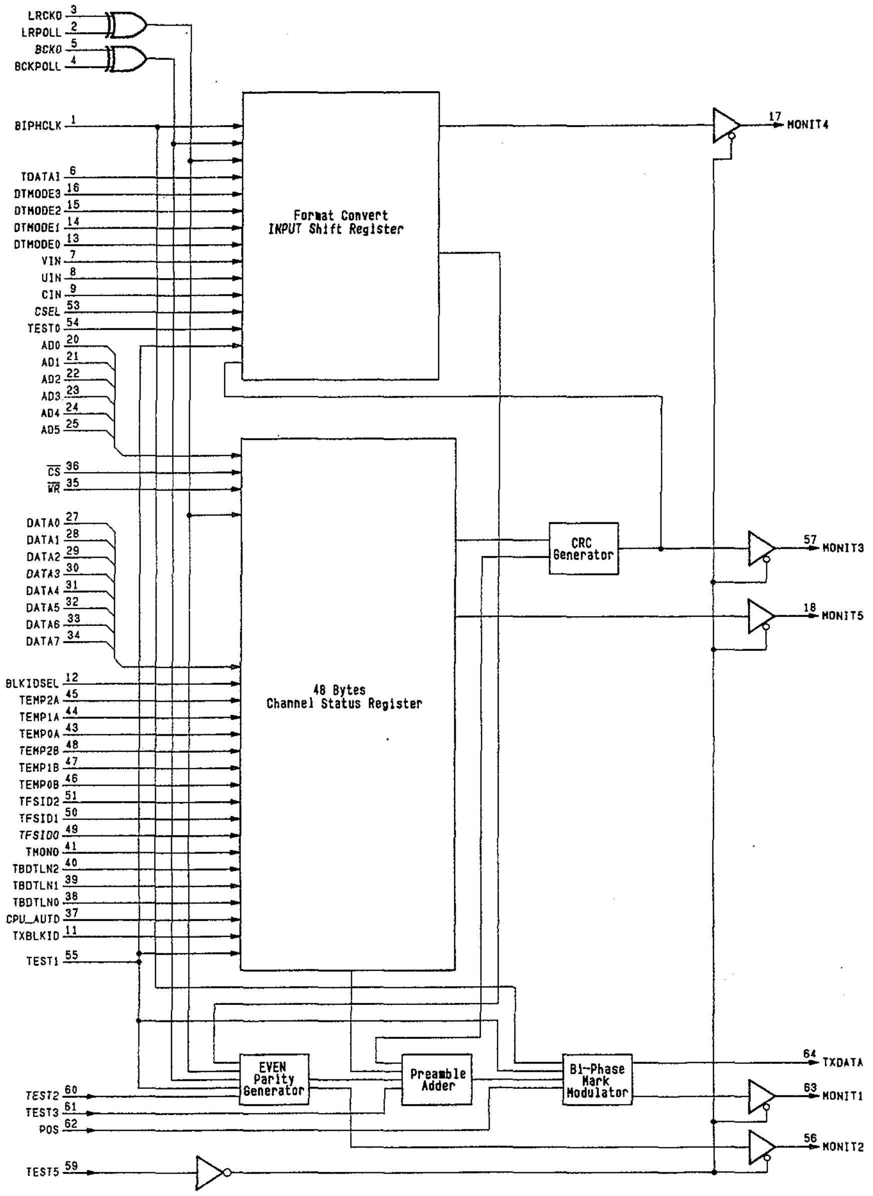
CXD8277Q (TI) FLAT PACKAGE
CMOS DIGITAL AUDIO SIGNAL OUTPUT
– TOP VIEW –


51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
52 53 54 55 56 57 58 59 60 61 62 63 64
32 31 30 29 28 27 26 25 24 23 22 21 20
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
GND
VDD (+5V)
VDD (+5V)
GND
NC

(VDD = + 5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	BIPHCLK	17	O	MONIT4	33	I	DATA6	49	I	TFSID0
2	I	LRPOLL	18	O	MONIT5	34	I	DATA7	50	I	TFSID1
3	I	LRCKO	19	–	NC	35	I	$\overline{\mathrm{WR}}$	51	I	TFSID2
4	I	BCKPOLL	20	I	AD0	36	I	$\overline{\mathrm{CS}}$	52	I	$\overline{\mathrm{RESET}}$
5	I	BCKO	21	I	AD1	37	I	CPU_AUTO	53	I	CSEL
6	I	TDATAI	22	I	AD2	38	I	TBITLN0	54	I	TEST0
7	I	VIN	23	I	AD3	39	I	TBITLN1	55	I	TEST1
8	I	UIN	24	I	AD4	40	I	TBITLN2	56	O	MONIT2
9	I	CIN	25	I	AD5	41	I	TMONO	57	O	MONIT3
10	–	GND	26	–	VDD	42	–	GND	58	–	VDD
11	I	TxBLKID	27	I	DATA0	43	I	TEMP0A	59	I	TEST5
12	I	BLKIDSEL	28	I	DATA1	44	I	TEMP1A	60	I	TEST2
13	I	DTMODE0	29	I	DATA2	45	I	TEMP2A	61	I	TEST3
14	I	DTMODE1	30	I	DATA3	46	I	TEMP0B	62	I	POS
15	I	DTMODE2	31	I	DATA4	47	I	TEMP1B	63	O	MONIT1
16	I	DTMODE3	32	I	DATA5	48	I	TEMP2B	64	O	TxDATA

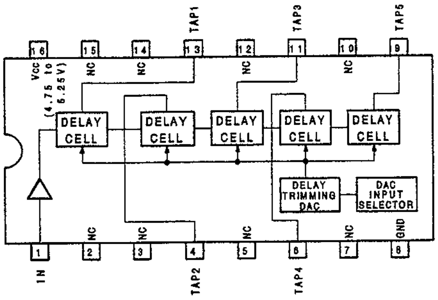

6 TDATAI
7 VIN
8 UIN
9 CIN
13 DTMODE0
14 DTMODE1
15 DTMODE2
16 DTMODE3
20 AD0
21 AD1
22 AD2
23 AD3
24 AD4
25 AD5
27 DATA0
28 DATA1
29 DATA2
30 DATA3
31 DATA4
32 DATA5
33 DATA6
34 DATA7
53 CSEL
36 CS
35 WR
11 TXBLKID
12 BLKIDSEL
37 CPU_AUTO
38 TBITLN0
39 TBITLN1
40 TBITLN2
41 TMONO
43 TEMP0A
44 TEMP1A
45 TEMP2A
46 TEMP0B
47 TEMP1B
48 TEMP2B
49 TFSID0
50 TFSID1
51 TFSID2
62 POS
54 TEST0
55 TEST1
60 TEST2
61 TEST3
59 TEST5
1 BIPHCLK
3 LRCKO
5 BCKO
4 BCKPOLL
2 LRPOLL
52 RESET
TXDATA 64
MONIT1 63
MONIT2 56
MONIT3 57
MONIT4 17
MONIT5 18


LRCKO 3
LRPOLL 2
BCKO 5
BCKPOLL 4
BIPHCLK 1
TDATAI 6
DTMODE3 16
DTMODE2 15
DTMODE1 14
DTMODE0 13
VIN 7
UIN 8
CIN 9
CSEL 53
TEST0 54
AD0 20
AD1 21
AD2 22
AD3 23
AD4 24
AD5 25
CS 36
WR 35
DATA0 27
DATA1 28
DATA2 29
DATA3 30
DATA4 31
DATA5 32
DATA6 33
DATA7 34
BLKIDSEL 12
TEMP2A 45
TEMP1A 44
TEMP0A 43
TEMP2B 48
TEMP1B 47
TEMP0B 46
TFSID2 51
TFSID1 50
TFSID0 49
TMONO 41
TBDTLN2 40
TBDTLN1 39
TBDTLN0 38
CPU_AUTO 37
TXBLKID 11
TEST1 55
TEST2 60
TEST3 61
POS 62
TEST5 59
Format Convert
INPUT Shift Register
48 Bytes
Channel Status Register
CRC
Generator
EVEN
Parity
Generator
Preamble
Adder
Bi-Phase
Mark
Modulator
17 MONIT4
57 MONIT3
18 MONIT5
64 TXDATA
63 MONIT1
56 MONIT2

INPUT	
AD0 – AD5	: ADDRESS BUS FOR WRITING CHANNEL STATUS DATA FROM EXTERNAL CPU TO CHANNEL STATUS REGISTER
BCKO	: BIT CLOCK (64Fs, 32Fs) FOR TDATAI
BCKPOLL	: POLARITY SWITCHING OF BCKO (PIN No.5)
BIPHCLK	: 128Fs FOR DO OUTPUT
BLKIDSEL	: BLOCK ID EXTERNAL/INTERNAL SELECTION ("H" : INTERNAL MODE)
CIN	: SERIAL INPUT OF EACH SUB FRAME CHANNEL STATUS
CPU_AUTO	: SWITCHING SIGNAL OF CPU AND AUTO MODE ("H" : AUTO MODE)
$\overline{\text{CS}}$	: CHIP SELECT SIGNAL FROM EXTERNAL CPU TO CHANNEL STATUS REGISTER ("L" : SELECT, "H" : UNSELECT)
CSEL	: SELECTS THE USE OF CIN (EXTERNAL INPUT) OR INTERNAL REGISTER FOR CHANNEL STATUS DATA. ("H" : INTERNAL REGISTER)
DATA0 – DATA7	: DATA BUS FOR WRITING CHANNEL STATUS DATA FROM EXTERNAL CPU TO CHANNEL STATUS REGISTER
DTMODE0 – 3	: DECISION OF DIGITAL AUDIO SIGNAL INPUT FORMAT
LRCKO	: L/R CLOCK FOR DIGITAL AUDIO SIGNAL OUTPUT
LRPOLL	: POLARITY SWITCHING OF LRCKO (PIN No.3)
POS	: FORCIBLY SETS PREAMBLE TO BE POSITIVE POLARITY ("H" : ACTIVE)
$\overline{\text{RESET}}$	: SETS TxDATA OUTPUT (AUDIO DATA, AND VALIDITY BIT, USER DATA AND CHANNEL STATUS DATA) TO BE "0". ("L" : ACTIVE)
TBITLN0 – 2	: SUBFRAME A/B CHANNEL STATUS SETTING (DATA BIT LENGTH)
TDATA1	: DIGITAL AUDIO SIGNAL INPUT
TEMP0A – 2A	: SUBFRAME A EMP INFORMATION
TEMP0B – 2B	: SUBFRAME B EMP INFORMATION
TEST0	: TEST RESET (CONNECTION TO GND)
TEST1	: TEST RESET (CONNECTION TO GND)
TEST2	: TEST
TEST3	: TEST
TEST5	: CONTROL SIGNAL OF MONIT1 TO 5
TFSID0 – 2	: SUBFRAME A/B Fs INFORMATION
TMONO	: SUBFRAME A/B CHANNEL STATUS SETTING (MONOPHONIC/TWO CHANNEL MODE)
TxBLKID	: EXTERNAL BLOCK ID SIGNAL
UNI	: SERIAL INPUT OF EACH SUB FRAME USER DATA
VIN	: SERIAL INPUT OF EACH SUB FRAME VALIDITY BIT
$\overline{\text{WR}}$	: CHANNEL STATUS DATA WRITING FROM EXTERNAL CPU TO CHANNELSTATUS REGISTER
OUTPUT	
MONIT1 – 5	: MONITOR
TxDATA	: AES/EBU FORMAT DIGITAL AUDIO OUTPUT

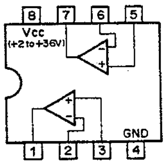
DMA030S (SWCC) FLAT PACKAGE

DELAY LINE
-TOP VIEW-


16
15
14
13
12
11
10
9
TAP1
TAP3
TAP5
Vcc (4.75 to 5.25V)
NC
NC
NC
NC
DELAY CELL
DELAY CELL
DELAY CELL
DELAY CELL
DELAY CELL
DELAY TRIMMING DAC
DAC INPUT SELECTOR
1
2
3
4
5
6
7
8
IN
NC
NC
TAP2
NC
TAP4
NC
GND

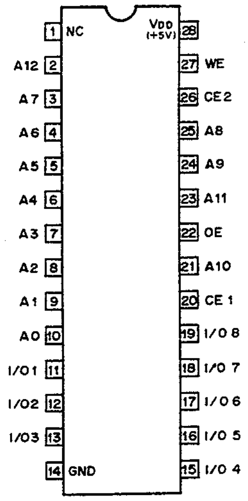
LM393PS (TI) FLAT PACKAGE

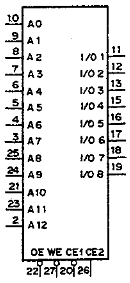
DUAL VOLTAGE COMPARATORS
– TOP VIEW –


8
7
6
5
Vcc (+2 to +36V)
GND
1
2
3
4

CXK5864BM-10L (SONY) FLAT PACKAGE
CXK5864BM-10LL (SONY) FLAT PACKAGE

C-MOS 64K (8192x8)-BIT STATIC RAM
– TOP VIEW –

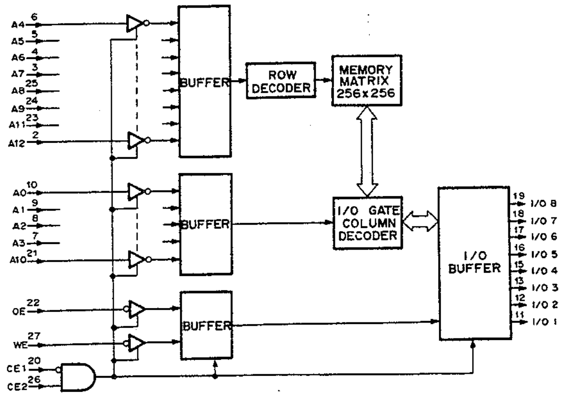

1 NC
A12 2
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
I/O1 11
I/O2 12
I/O3 13
14 GND
VDD (+5V) 28
27 WE
26 CE2
25 A8
24 A9
23 A11
22 OE
21 A10
20 CE 1
19 I/O 8
18 I/O 7
17 I/O 6
16 I/O 5
15 I/O 4


10 A0
9 A1
8 A2
7 A3
6 A4
5 A5
4 A6
3 A7
25 A8
24 A9
21 A10
23 A11
2 A12
I/O 1 11
I/O 2 12
I/O 3 13
I/O 4 15
I/O 5 16
I/O 6 17
I/O 7 18
I/O 8 19
OE WE CE1 CE2
22 27 20 26

A0-A12 ; ADDRESS INPUT
CE1, CE2 ; CHIP ENABLE INPUT
I/O1-I/O8 ; DATA INPUT/OUTPUT
OE ; OUTPUT ENABLE INPUT
WE ; WRITE ENABLE INPUT

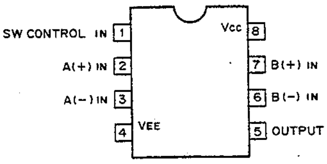
CE1	CE2	OE	WE	MODE	I/O TERMINAL
1	X	X	X	NOT SELECT	HIGH IMPEDANCE
X	0	X	X	NOT SELECT	HIGH IMPEDANCE
0	1	1	1	OUTPUT DISABLE	HIGH IMPEDANCE
0	1	0	1	READ	OUTPUT DATA
0	1	X	0	WRITE	INPUT DATA

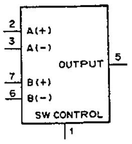
0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

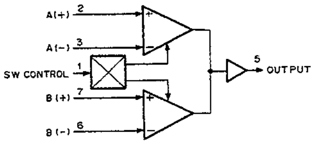

A4 6
A5 5
A6 4
A7 3
A8 25
A9 24
A11 23
A12 2
BUFFER
ROW DECODER
MEMORY MATRIX 256x256
A0 10
A1 9
A2 8
A3 7
A10 21
BUFFER
I/O GATE COLUMN DECODER
I/O BUFFER
OE 22
WE 27
BUFFER
CE1 20
CE2 26
19 I/O 8
18 I/O 7
17 I/O 6
16 I/O 5
15 I/O 4
13 I/O 3
12 I/O 2
11 I/O 1

M5203FP (MITSUBISHI) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIERS WITH SWITCHED OUTPUT
– TOP VIEW –


SW CONTROL IN 1
A(+) IN 2
A(−) IN 3
4 VEE
Vcc 8
7 B(+) IN
6 B(−) IN
5 OUTPUT

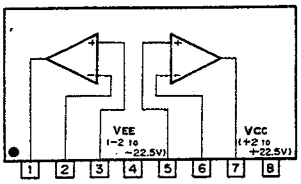

2 A(+)
3 A(−)
7 B(+)
6 B(−)
OUTPUT 5
SW CONTROL
1


A(+) 2
A(−) 3
SW CONTROL 1
B(+) 7
B(−) 6
5 OUTPUT

	Vcc	VEE
M5201	+15V	−15V
M5203	+18V	−18V

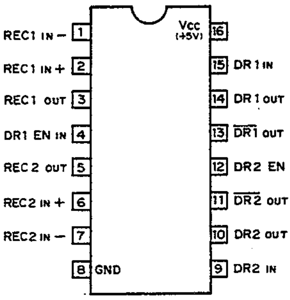
M5219L (MITSUBISHI)

LOW NOISE OPERATIONAL AMPLIFIER
- SIDE VIEW -


VEE
(-2 to -22.5V)
VCC
(+2 to +22.5V)
1
2
3
4
5
6
7
8

MC34051M (MOTOROLA) FLAT PACKAGE

RS-422 DRIVER/RECEIVER
- TOP VIEW -

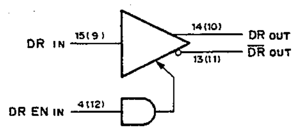

REC1 IN − 1
REC1 IN + 2
REC1 OUT 3
DR1 EN IN 4
REC2 OUT 5
REC2 IN + 6
REC2 IN − 7
8 GND
Vcc (+5V) 16
15 DR1 IN
14 DR1 OUT
13 DR1 OUT
12 DR2 EN IN
11 DR2 OUT
10 DR2 OUT
9 DR2 IN

DR EN	MODE
0	DISABLE
1	ENABLE

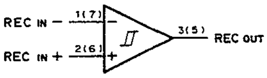
0 ; LOW LEVEL
1 ; HIGH LEVEL

DR ; DRIVER
DR EN ; DRIVER ENABLE
REC ; RECEIVER

DRIVER CIRCUIT

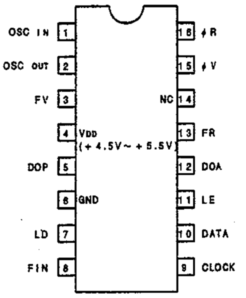

DR IN
15(9)
14(10)
DR OUT
DR OUT
13(11)
DR EN IN
4(12)

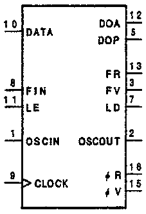
RECEIVER CIRCUIT


REC IN −
1(7)
REC IN +
2(6)
3(5)
REC OUT

MB87014APF (FUJITSU) FLAT PACKAGE

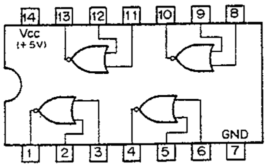
C-MOS PLL FREQUENCY SYNTHESIZER WITH PRE-SCALER
-TOP VIEW-

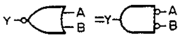

OSC IN 1
OSC OUT 2
FV 3
4 VDD (+4.5V~+5.5V)
DOP 5
8 GND
LD 7
FIN 8
18 ϕR
15 ϕV
NC 14
13 FR
12 DOA
11 LE
10 DATA
9 CLOCK


10 DATA
8 FIN
11 LE
1 OSCIN
9 CLOCK
DOA 12
DOP 5
FR 13
FV 3
LD 7
OSCOUT 2
ϕR 18
ϕV 15

MC74F02M (MOTOROLA) FLAT PACKAGE

TTL 2-INPUT POSITIVE-NOR GATE
- TOP VIEW -


14
13
12
11
10
9
8
Vcc (+5V)
GND
1
2
3
4
5
6
7



$Y=\overline{A+B}=\overline{A}\cdot\overline{B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

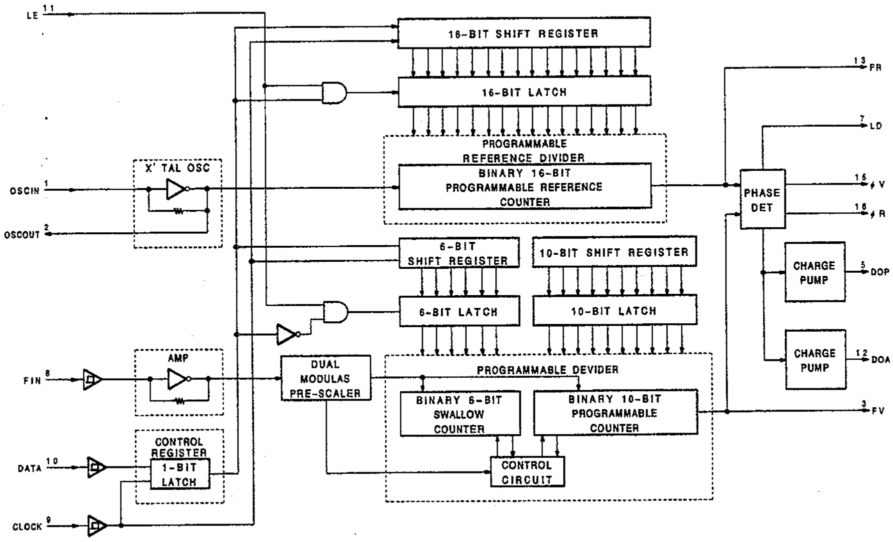
0:LOW LEVEL
1:HIGH LEVEL

INPUT

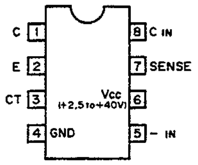
CLOCK;CLOCK FOR SHIFT RESISTER
DATA ;SERIAL DATA FOR SHIFT RESISTER
FIN ;PRE-SCALER INPUT
LE ;LOAD ENABLE
OSC ;CRYSTAL OSCILLATOR

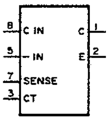
OUTPUT

DOA ;LOW PASS FILTER(ACTIVE)
DOP ;LOW PASS FILTER(PASSIVE)
FR,FV ;MONITORS OUTPUT FOR COMPARATOR
LD ;PHASE COMPARATOR
OSC ;CRYSTAL OSCILLATOR
ϕR,ϕV;LOW PASS FILTER CONNECTION


LE 11
16-BIT SHIFT REGISTER
16-BIT LATCH
PROGRAMMABLE REFERENCE DIVIDER
BINARY 16-BIT PROGRAMMABLE REFERENCE COUNTER
X' TAL OSC
OSCIN 1
OSCOUT 2
6-BIT SHIFT REGISTER
10-BIT SHIFT REGISTER
6-BIT LATCH
10-BIT LATCH
AMP
FIN 8
DUAL MODULAS PRE-SCALER
PROGRAMMABLE DEVIDER
BINARY 6-BIT SWALLOW COUNTER
BINARY 10-BIT PROGRAMMABLE COUNTER
CONTROL REGISTER
1-BIT LATCH
DATA 10
CLOCK 9
CONTROL CIRCUIT
PHASE DET
CHARGE PUMP
CHARGE PUMP
13 FR
7 LD
15 ϕV
18 ϕR
5 DOP
12 DOA
3 FV

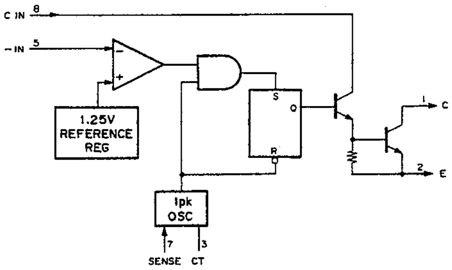
MC34063AM (MOTOROLA)
DC-DC CONVERTER CONTROLLER
– TOP VIEW –


C 1
E 2
CT 3
4 GND
8 C IN
7 SENSE
Vcc (+2.5to+40V) 6
5 – IN

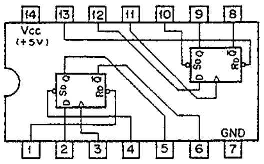

8 C IN
5 – IN
7 SENSE
3 CT
C 1
E 2

INPUT
C IN ; DRIVE COLLECTOR
CT ; TIMING CAPACITOR
–IN ; COMPARATOR INVERTING
SENSE ; I PEAK SENSE

OUTPUT
C ; SWITCH COLLECTOR
E ; SWITCH EMITTER

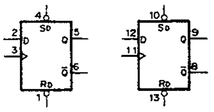

C IN 8
– IN 5
1.25V REFERENCE REG
S
Q
R
Ipk OSC
7 SENSE
3 CT
1 C
2 E

MC74F74M (MOTOROLA) FLAT PACKAGE
TTL D-TYPE FLIP FLOP WITH DIRECT SET/RESET
– TOP VIEW –

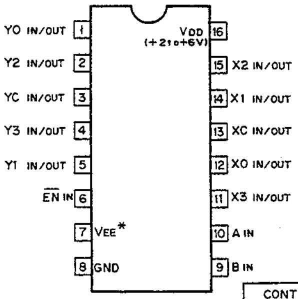

14 13 12 11 10 9 8
Vcc (+5V)
GND
1 2 3 4 5 6 7

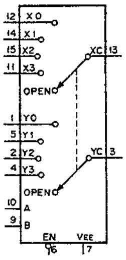
INPUTS				OUTPUTS	
$\overline{S_D}$	$\overline{R_D}$	CK	D	Qn+1	$\overline{Qn+1}$
0	1	X	X	1	0
1	0	X	X	0	1
0	0	X	X	1*	1*
1	1	↑	1	1	0
1	1	↑	0	0	1
1	1	0	X	Qn	$\overline{Qn}$

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
1*; NONSTABLE


4 SD
2 D
3
5 Q
6 Q̄
RD 1
10 SD
12 D
11
9 Q
8 Q̄
RD 13

MC74HC4052F (MOTOROLA) FLAT PACKAGE
C-MOS DUAL 4-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –


Y0 IN/OUT 1
Y2 IN/OUT 2
YC IN/OUT 3
Y3 IN/OUT 4
Y1 IN/OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+2to+6V) 16
15 X2 IN/OUT
14 X1 IN/OUT
13 XC IN/OUT
12 X0 IN/OUT
11 X3 IN/OUT
10 A IN
9 B IN

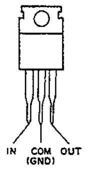

12 X0
14 X1
15 X2
11 X3
OPEN
XC 13
1 Y0
5 Y1
2 Y2
4 Y3
OPEN
YC 3
10 A
9 B
EN 6
VEE 7

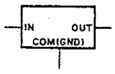
VEE*; VDD – VEE = +3 to +12 V

CONTROL INPUTS			"ON" CHANNEL
EN	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	X	X	OPEN

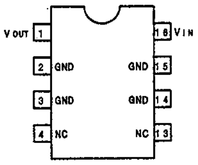
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

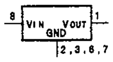
MC7815CT (MOTOROLA) + 15V
POSITIVE VOLTAGE REGULATOR (1A)
– SIDE VIEW –


IN
COM (GND)
OUT

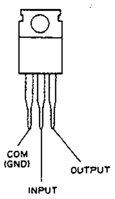

IN
OUT
COM(GND)

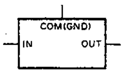
MC78L05M (MOTOROLA)
POSITIVE VOLTAGE REGULATOR
-TOP VIEW-


VOUT 1
2 GND
3 GND
4 NC
8 VIN
GND 5
GND 6
NC 7

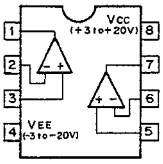

8
VIN
VOUT
GND
1
2,3,6,7

MC7915CT (MOTOROLA) – 15V
NEGATIVE VOLTAGE REGULATOR (1A)
– SIDE VIEW –

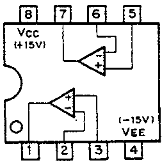

COM (GND)
OUTPUT
INPUT


COM(GND)
IN
OUT

NE5532P (TI)
LOW NOISE OPERATIONAL AMPLIFIER
– TOP VIEW –

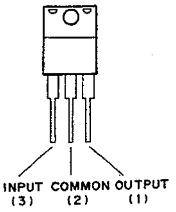

1 2 3 4
Vcc (+3to+20V)
8 7 6 5
VEE (–3to–20V)

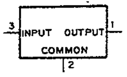
NJM4560M (JRC) FLAT PACKAGE
RC4558PS (TI) FLAT PACKAGE
DUAL OPERATIONAL AMPLIFIER
– TOP VIEW –


8 7 6 5
Vcc (+15V)
(–15V) VEE
1 2 3 4

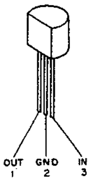
NJM7805FA (JRC) +5V
POSITIVE VOLTAGE REGULATOR (500mA)

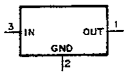
– FRONT VIEW –


INPUT (3)
COMMON (2)
OUTPUT (1)


3
INPUT
OUTPUT
1
COMMON
2

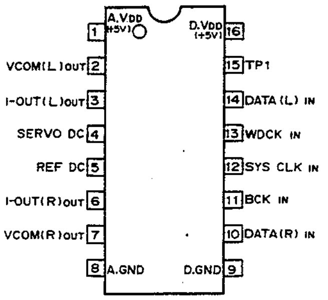
NJM78L12A (JRC) +12V (100mA)
POSITIVE VOLTAGE REGULATOR

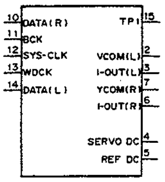

OUT 1
GND 2
IN 3

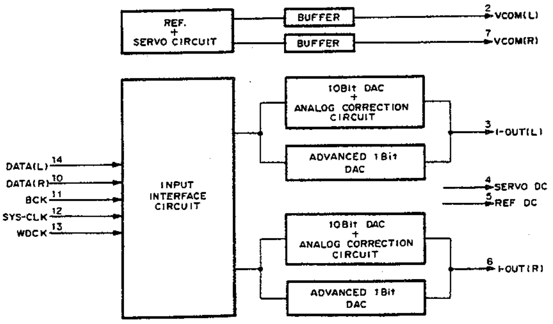

3
IN
OUT
1
GND
2

PCM69AP-K (BURR-BROWN)
C-MOS DUAL 18-BIT D/A CONVERTER

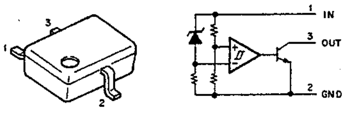
– TOP VIEW –


1 A.VDD (+5V)
2 VCOM(L)OUT
3 I-OUT(L)OUT
4 SERVO DC
5 REF DC
6 I-OUT(R)OUT
7 VCOM(R)OUT
8 A.GND
16 D.VDD (+5V)
15 TP1
14 DATA(L) IN
13 WDCK IN
12 SYS CLK IN
11 BCK IN
10 DATA(R) IN
9 D.GND


10 DATA(R)
11 BCK
12 SYS-CLK
13 WDCK
14 DATA(L)
TP1 15
VCOM(L) 2
I-OUT(L) 3
VCOM(R) 7
I-OUT(R) 6
SERVO DC 4
REF DC 5

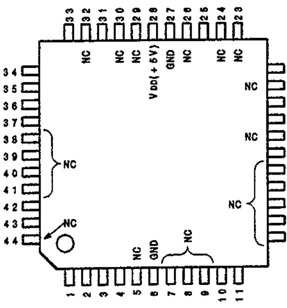

REF. + SERVO CIRCUIT
BUFFER
BUFFER
2 VCOM(L)
7 VCOM(R)
DATA(L) 14
DATA(R) 10
BCK 11
SYS-CLK 12
WDCK 13
INPUT INTERFACE CIRCUIT
10Bit DAC + ANALOG CORRECTION CIRCUIT
ADVANCED 1Bit DAC
3 I-OUT(L)
4 SERVO DC
5 REF DC
10Bit DAC + ANALOG CORRECTION CIRCUIT
ADVANCED 1Bit DAC
6 I-OUT(R)

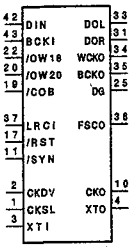
PST529DMT (MITSUMI) Vs=4.2V
VOLTAGE DETECTOR, SYSTEM RESET


1
2
3
1 IN
3 OUT
2 GND

SM5813AF (NPC)
C-MOS 8Fs OVER SAMPLING FILTER

-TOP VIEW-


NC
VDD(+5V)
GND
NC
NC
NC
NC
GND
NC


42 DIN
43 BCKI
22 /OW18
20 /OW20
19 /COB
37 LRCI
17 /RST
11 /SYN
2 CKDV
1 CKSL
3 XTI
DOL 33
DOR 31
WCKO 34
BCKO 35
DG 25
FSCO 36
CKO 10
XTO 4

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	/CKSL	12	-	NC	23	-	NC	34	O	WCKO
2	I	/CKDV	13	-	NC	24	-	NC	35	O	BCKO
3	I	XTI	14	-	NC	25	O	DG	36	O	FSCO
4	O	XTO	15	-	NC	26	-	NC	37	I	LRCI
5	-	NC	16	-	NC	27	-	GND	38	-	NC
6	-	GND	17	I	/RST	28	-	VDD(+5V)	39	-	NC
7	-	NC	18	-	NC	29	-	NC	40	-	NC
8	-	NC	19	I	/COB	30	-	NC	41	-	NC
9	-	NC	20	I	/OW20	31	O	DOR	42	I	DIN
10	O	CKO	21	-	NC	32	-	NC	43	I	BCKI
11	I	/SYN	22	I	/OW18	33	O	DOL	44	-	NC

INPUT

BCKI ;INPUT DATA BIT CLOCK
CKDV,CKSL ;SYSTEM CLOCK SELECT
COB ;2' COMPLEMENT/COB SELECT(H:2' S COMPLEMENT,L:COB)
DIN ;INPUT DATA
LRCI ;SAMPLING RATE(Fs)CLOCK FOR INPUT DATA(H:L-CH,L:R-CH)
OW18,20 ;OUTPUT BIT NUMBER SELECT

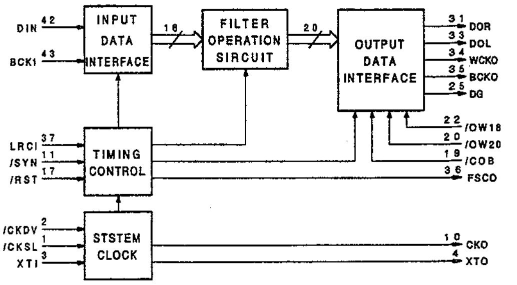
OUTPUT BIT	16	18	20
OW18	H	L	H
OW20	H	H	L

RST ;SYSTEM RESET(H:NORMAL,L:SYSTEM RESET)
SYN ;JITTER FREE/FORCED SYNCHRONIZATION SELECT (H:JITTER FREE,L:FORCED SYNCHRONIZATION)
XTI ;OSCILLATOR

XTI	192fs	256fs	384fs	512fs
CKSL	H	L	H	L
CKDV	H	H	L	L

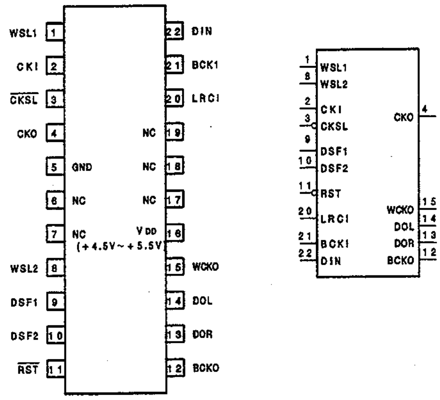
OUTPUT

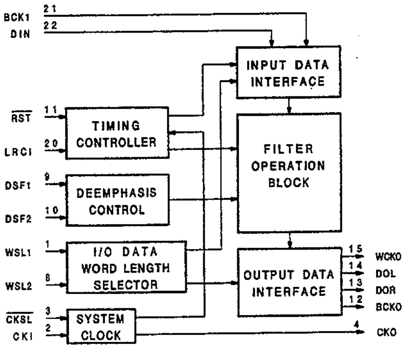
BCKO ;OUTPUT DATA BIT CLOCK
CKO ;SYSTEM CLOCK
DG ;DEGLITCH CONTROL CLOCK
DOL,DOR ;LCH,RCH DATA
FSCO ;TIMING CLOCK
WCKO ;OUTPUT DATA WORD CLOCK
XTO ;OSCILLATOR


DIN 42
BCKI 43
INPUT DATA INTERFACE
16
FILTER OPERATION SIRCUIT
20
OUTPUT DATA INTERFACE
31 DOR
33 DOL
34 WCKO
35 BCKO
25 DG
22 /OW18
20 /OW20
19 /COB
36 FSCO
LRCI 37
/SYN 11
/RST 17
TIMING CONTROL
/CKDV 2
/CKSL 1
XTI 3
STSTEM CLOCK
10 CKO
4 XTO

SM5840ES (NPC) FLAT PACKAGE

C-MOS DIGITAL FILTER FOR CD/PCM
-TOP VIEW-


WSL1 1
CKI 2
CKSL 3
CKO 4
5 GND
6 NC
7 NC
WSL2 8
DSF1 9
DSF2 10
RST 11
22 DIN
21 BCK1
20 LRCI
NC 19
NC 18
NC 17
VDD (+4.5V~+5.5V) 16
15 WCKO
14 DOL
13 DOR
12 BCKO
WSL1
WSL2
CKI
CKSL
DSF1
DSF2
RST
LRCI
BCKI
DIN
CKO
WCKO
DOL
DOR
BCKO


BCKI 21
DIN 22
INPUT DATA INTERFACE
RST 11
LRCI 20
TIMING CONTROLLER
FILTER OPERATION BLOCK
DSF1 9
DSF2 10
DEEMPHASIS CONTROL
WSL1 1
WSL2 8
I/O DATA WORD LENGTH SELECTOR
OUTPUT DATA INTERFACE
15 WCKO
14 DOL
13 DOR
12 BCKO
CKSL 3
CKI 2
SYSTEM CLOCK
4 CKO

INPUT

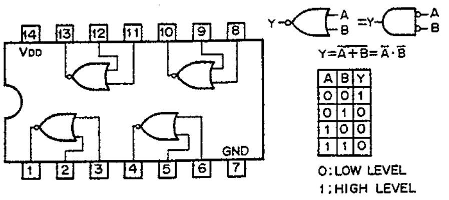
BCKI ;INPUT BIT CLOCK
CKSL ;SYSTEM CLOCK SELECT
CKI ;SYSTEM CLOCK
DSF1,2 ;DE-EMPHASIS SELECTOR
DIN ;INPUT DATA
LRCI ;INPUT DATA SAMPLING RATE(Fs) CLOCK
RST ;SYSTEM RESET
WSL1,2 ;INPUT/OUTPUT DATA WORD LENGTH SELECTOR

OUTPUT

BCKO ;OUTPUT BIT CLOCK
CKO ;SYSTEM CLOCK
DOL ;Lch 8·Fs DATA OUTPUT
DOR ;Rch 8·Fs DATA OUTPUT
WCKO ;OUTPUT WORD CLOCK

SN74HC02ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT NOR GATES
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
Y
A
B
=Y
A
B

$Y=\overline{A+B}=\overline{A}\cdot\overline{B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

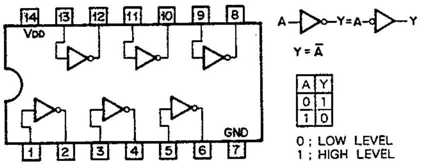
0:LOW LEVEL
1;HIGH LEVEL

NOTE :

TYPE	VDD
TC74AC02F	+2 to +5.5V
74ACT02SJ TC74ACT02F	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC04ANS (TI) FLAT PACKAGE
SN74HCU04ANS (TI) FLAT PACKAGE
TC74HCT04AF (TOSHIBA) FLAT PACKAGE

C-MOS HEX INVERTERS
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
Y=A
Y

$Y=\overline{A}$

A	Y
0	1
1	0

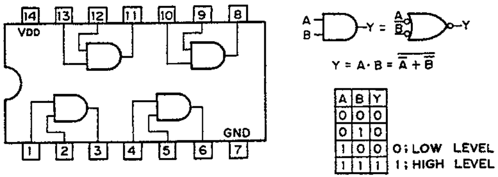
0 ; LOW LEVEL
1 ; HIGH LEVEL

NOTE :

TYPE	VDD
74HCT04 TYPE	+5V
74VHC TC74AC04 TYPE	+2 to +5.5V
74ACT04 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC08ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT AND GATES
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
B
Y =
A
B
Y

$Y = A\cdot B = \overline{\overline{A}+\overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

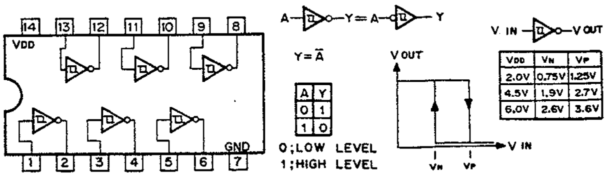
0; LOW LEVEL
1; HIGH LEVEL

NOTE :

TYPE	VDD
TC74AC08F MC74ACT08M	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC14ANS (TI) FLAT PACKAGE

C-MOS HEX SCHMITT TRIGGER INVERTERS
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
Y= A
Y
V OUT
V IN
VN
VP
V IN
V OUT

$Y=\overline{A}$

A	Y
0	1
1	0

0;LOW LEVEL
1;HIGH LEVEL

VDD	VN	VP
2.0V	0.75V	1.25V
4.5V	1.9V	2.7V
6.0V	2.6V	3.6V

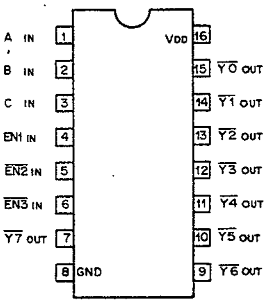
NOTE :

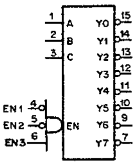
TYPE	VDD
TC74AC14 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC138ANS (TI) FLAT PACKAGE

C-MOS 3-TO-8 LINE DECODER/DEMULTIPLEXER

– TOP VIEW –


A IN 1
B IN 2
C IN 3
EN1 IN 4
$\overline{EN2}$ IN 5
$\overline{EN3}$ IN 6
$\overline{Y7}$ OUT 7
8 GND
VDD 16
15 $\overline{Y0}$ OUT
14 $\overline{Y1}$ OUT
13 $\overline{Y2}$ OUT
12 $\overline{Y3}$ OUT
11 $\overline{Y4}$ OUT
10 $\overline{Y5}$ OUT
9 $\overline{Y6}$ OUT


1 A
2 B
3 C
EN1 4
EN2 5
EN3 6
EN
Y0 15
Y1 14
Y2 13
Y3 12
Y4 11
Y5 10
Y6 9
Y7 7

INPUTS				OUTPUTS							
EN	C	B	A	Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0
0	X	X	X	1	1	1	1	1	1	1	1
1	0	0	0	1	1	1	1	1	1	1	0
1	0	0	1	1	1	1	1	1	1	0	1
1	0	1	0	1	1	1	1	1	0	1	1
1	0	1	1	1	1	1	1	0	1	1	1
1	1	0	0	1	1	1	0	1	1	1	1
1	1	0	1	1	1	0	1	1	1	1	1
1	1	1	0	1	0	1	1	1	1	1	1
1	1	1	1	0	1	1	1	1	1	1	1

$EN = \overline{EN1} \cdot \overline{EN2} \cdot EN3$

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

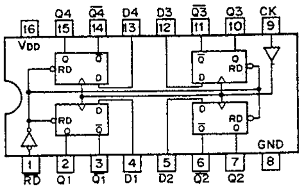
NOTE :

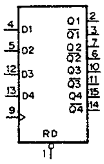
TYPE	VDD
74HCT138 TYPE	+5V
74ACT138 TYPE	+4.5 to +5.5V
TC74AC138 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC175ANS (TI) FLAT PACKAGE

C-MOS QUAD D-TYPE FLIP-FLOPS WITH RESET

– TOP VIEW –


Q4
$\overline{Q4}$
D4
D3
$\overline{Q3}$
Q3
CK
16
15
14
13
12
11
10
9
VDD
RD
D
Q
GND
1
2
3
4
5
6
7
8
$\overline{RD}$
Q1
$\overline{Q1}$
D1
D2
$\overline{Q2}$
Q2


4 D1
5 D2
12 D3
13 D4
9
RD
1
Q1 2
$\overline{Q1}$ 3
Q2 7
$\overline{Q2}$ 6
Q3 10
$\overline{Q3}$ 11
Q4 15
$\overline{Q4}$ 14

RD	CK	D	Q	$\overline{Q}$
0	X	X	0	1
1	↑	1	1	0
1	↑	0	0	1
1	0	X	Q0	$\overline{Q0}$

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
Q0 ; NO CHANGE
$\overline{Q0}$; NO CHANGE

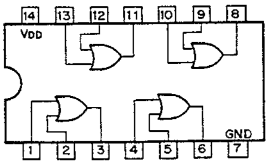
NOTE :

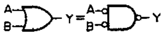
TYPE	VDD
AC TYPE	+2 to +5.5 V
74ACT175 TYPE	+4.5V to 5.5 V
OTHER TYPES	+2 to +6 V

SN74HC32ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT OR GATES

– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0;LOW LEVEL
1;HIGH LEVEL

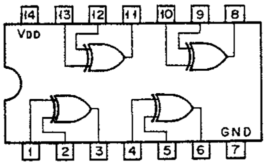
NOTE :

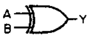
TYPE	VDD
TC74AC32 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC86ANS (TI) FLAT PACKAGE
TC74HC86AF (TOSHIBA) FLAT PACKAGE

C-MOS QUAD EXCLUSIVE OR GATES

– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A} \cdot B + A \cdot \overline{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0;LOW LEVEL
1;HIGH LEVEL

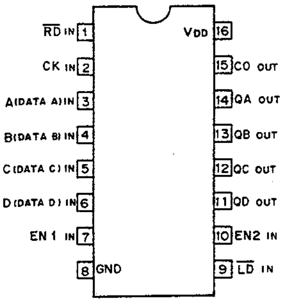
NOTE :

TYPE	VDD
TC74AC86 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC163ANS (TI) FLAT PACKAGE

C-MOS PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER

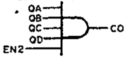
– TOP VIEW –


$\overline{RD}$ IN 1
CK IN 2
A(DATA A) IN 3
B(DATA B) IN 4
C(DATA C) IN 5
D(DATA D) IN 6
EN 1 IN 7
8 GND
VDD 16
15 CO OUT
14 QA OUT
13 QB OUT
12 QC OUT
11 QD OUT
10 EN2 IN
9 $\overline{LD}$ IN

MODE SELECTION

CONTROL INPUTS				MODE
RD	LD	EN1	EN2	
0	X	X	X	RESET (SYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

CARRY OUTPUT "CO"


QA
QB
QC
QD
EN2
CO

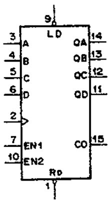
CO IS HIGH WHEN EN2 INPUT IS HIGH AND COUNT IS "15".

NOTE :

TYPE	VDD
74ACT163 TYPE	+4.5 to +5.5V
IDT74FCT163 TYPE	+5V
TC74AC163 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

COUNT SEQUENCE

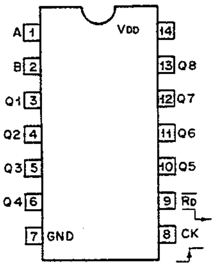
COUNT	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

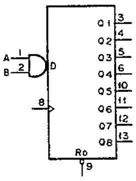

9
LD
3 A
4 B
5 C
6 D
2
7 EN1
10 EN2
RD
1
QA 14
QB 13
QC 12
QD 11
CO 15

SN74HC164ANS (TI) FLAT PACKAGE

C-MOS 8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REGISTER

– TOP VIEW –


A 1
B 2
Q1 3
Q2 4
Q3 5
Q4 6
7 GND
VDD 14
13 Q8
12 Q7
11 Q6
10 Q5
9 $\overline{RD}$
8 CK

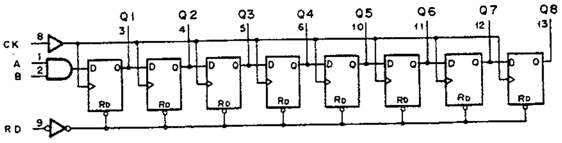

A 1
B 2
D
8
RD
9
Q1 3
Q2 4
Q3 5
Q4 6
Q5 10
Q6 11
Q7 12
Q8 13

INPUTS				OUTPUTS			
RD	CK	A	B	Q1	Q2	----	Q8
0	X	X	X	0	0	0	0
1	0	X	X	Q1o	Q2o	----	Q8o
1	↑	1	1	1	Q1n	----	Q7n
1	↑	0	X	0	Q1n	----	Q7n
1	↑	X	0	0	Q1n	----	Q7n

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

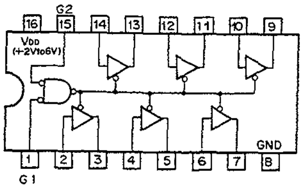
NOTE :

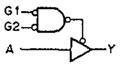
TYPE	VDD
TC74AC164 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V


Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
3
4
5
6
10
11
12
13
CK 8
A 1
B 2
D
Q
RD
RD 9

SN74HC365ANS (TI) FLAT PACKAGE

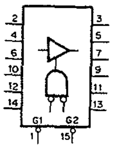
C-MOS 3-STATE BUS DRIVER
- TOP VIEW -


16
G2
15
14
13
12
11
10
9
VDD
(+2V to 6V)
GND
1
2
3
4
5
6
7
8
G1



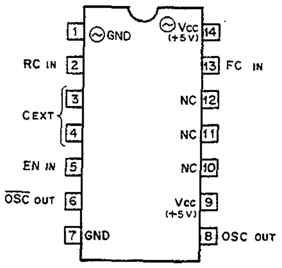
G1	G2	A	Y
0	0	0	0
0	0	1	1
0	1	X	HI-Z
1	0	X	HI-Z
1	1	X	HI-Z

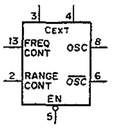
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE


2
4
6
10
12
14
3
5
7
9
11
13
G1
G2
1
15

SN74LS624NS (TI) FLAT PACKAGE

TTL VOLTAGE CONTROLLED OSCILLATOR
- TOP VIEW -


1
GND
VCC
(+5V)
14
RC IN
2
13
FC IN
CEXT
3
4
NC
12
NC
11
EN IN
5
NC
10
OSC OUT
6
VCC
(+5V)
9
7
GND
8
OSC OUT

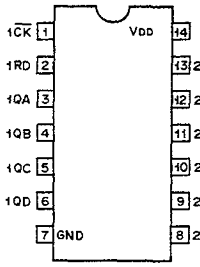

3
4
CEXT
13
FREQ CONT
OSC
8
2
RANGE CONT
OSC
6
EN
5

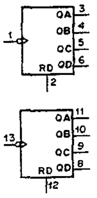
EN	OSC	$\overline{OSC}$
0	ENABLE	ENABLE
1	0	1

0; LOW LEVEL
1; HIGH LEVEL

SN74HC393ANS (TI) FLAT PACKAGE

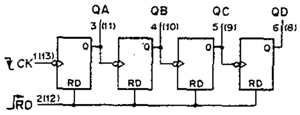
C-MOS DUAL 4-BIT BINARY COUNTER
- TOP VIEW -


1CK
1
1RD
2
1QA
3
1QB
4
1QC
5
1QD
6
7
GND
VDD
14
13
2CK
12
2RD
11
2QA
10
2QB
9
2QC
8
2QD


1
QA
3
QB
4
QC
5
RD
QD
6
2
13
QA
11
QB
10
QC
9
RD
QD
8
12

COUNT SEQUENCE

COUNT	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0.	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1


QA
QB
QC
QD
3 (11)
4 (10)
5 (9)
6 (8)
CK
1(13)
RD
2(12)
Q
RD

RESET/COUNT FUNCTION

RD	QD	QC	QB	QA
1	0	0	0	0
0	COUNT			

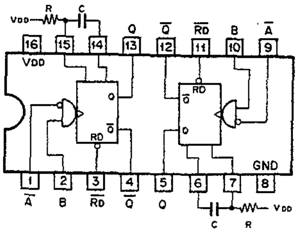
0; LOW LEVEL
1; HIGH LEVEL

NOTE :

TYPE	VDD
74AC	+2 to 5.5V
74HC	+2 to 6V

TC74HC123AF (TOSHIBA) FLAT PACKAGE

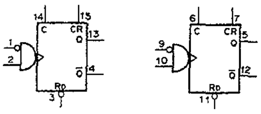
C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS
- TOP VIEW -


VDD
R
C
Q
Q
RD
B
A
16
15
14
13
12
11
10
9
VDD
RD
GND
1
2
3
4
5
6
7
8
A
B
RD
Q
Q
C
R
VDD

INPUT			OUTPUT	
RD	A	B	Q	$\overline{Q}$
0	X	X	0	1
1	1	X	0	1
1	X	0	0	1
1	0	↑	⊓	⊔
1	↓	1	⊓	⊔
↑	0	1	⊓	⊔

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

OUTPUT PULSE WIDTH = 0.46CR

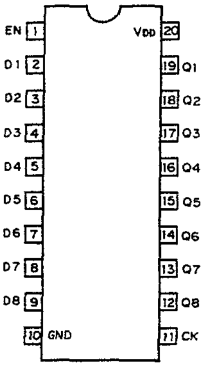

14
15
C
CR
13
Q
1
2
Q
4
RD
3
6
7
C
CR
5
Q
9
10
Q
12
RD
11

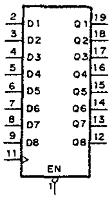
NOTE :

TYPE	VDD
TC74HCT123AF	+5V
OTHER TYPES	+2 to +6V

SN74HC574ANS (TI) FLAT PACKAGE

C-MOS 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP
- TOP VIEW -

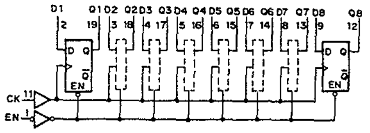

EN
1
D1
2
D2
3
D3
4
D4
5
D5
6
D6
7
D7
8
D8
9
10
GND
VDD
20
19
Q1
18
Q2
17
Q3
16
Q4
15
Q5
14
Q6
13
Q7
12
Q8
11
CK


2
D1
Q1
19
3
D2
Q2
18
4
D3
Q3
17
5
D4
Q4
16
6
D5
Q5
15
7
D6
Q6
14
8
D7
Q7
13
9
D8
Q8
12
11
EN
1

EACH FLIP-FLOP

INPUTS			OUT
EN	CK	D	Q
0	↑	1	1
0	↑	0	0
0	↓	X	Q_0
1	X	X	HI-Z

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
HI-Z : HIGH IMPEDANCE
Q_0 : NO CHANGE

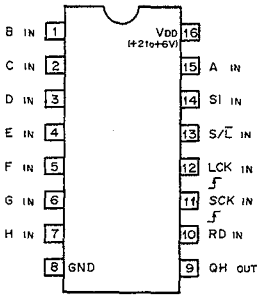

D1
Q1
D2
Q2
D3
Q3
D4
Q4
D5
Q5
D6
Q6
D7
Q7
D8
Q8
2
19
3
18
4
17
5
16
6
15
7
14
8
13
9
12
D
Q
EN
CK
11
EN
1

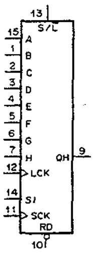
NOTE :

TYPE	VDD
74AC/74HC	+2 to +6V
74ACT/74FCT /74HCT	+5V
TC74AC574F	+2 to +5.5V

TC74HC597AF (TOSHIBA) FLAT PACKAGE

CMOS 8-BIT LATCH/SHIFT REGISTER
- TOP VIEW -

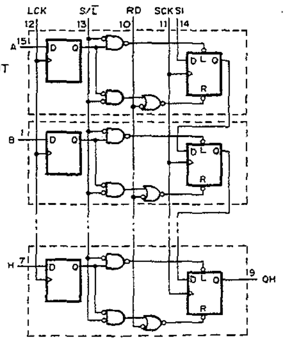

B IN
1
C IN
2
D IN
3
E IN
4
F IN
5
G IN
6
H IN
7
8
GND
VDD
(+2 to +6V)
16
15
A IN
14
SI IN
13
S/L IN
12
LCK IN
11
SCK IN
10
RD IN
9
QH OUT


13
S/L
15
A
1
B
2
C
3
D
4
E
5
F
6
G
7
H
QH
9
12
LCK
14
SI
11
SCK
RD
10

SI ; SERIAL DATA INPUT
S/$\overline{L}$; SERIAL SHIFT/PARALLEL LOAD INPUT
LCK ; LATCH CLOCK INPUT
SCK ; SHIFT CLOCK INPUT
RD ; RESET INPUT
A–H ; PARALLEL DATA INPUTS

INPUTS						OUTPUT
RD	LD	LCK	SCK	SI	A–H	QH
0	X	X	X	X	X	0
1	1	↑	0,1,↓	X	a–h	NO CHANGE
1	0	↑	X	X	a–h	h
1	1	X	↑	X	X	QGn

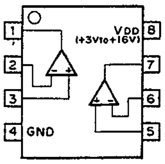
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
a–h ; DATA AT INPUTS A–H, RESPECTIVELY


LCK
S/L
RD
SCK
SI
12
13
10
11
14
A
15
D
Q
D
L
Q
R
B
1
H
7
QH
19

TLC272CPS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER

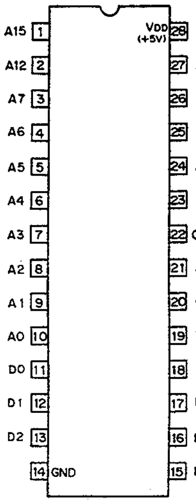
– TOP VIEW –

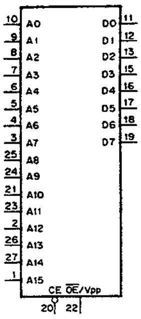

VDD (+3V to +16V)
GND
1
2
3
4
5
6
7
8

TMS27C512-15JL (TI)

C-MOS 512K (65,536x8 = 524,288)-BIT ERASABLE PROM

– TOP VIEW –

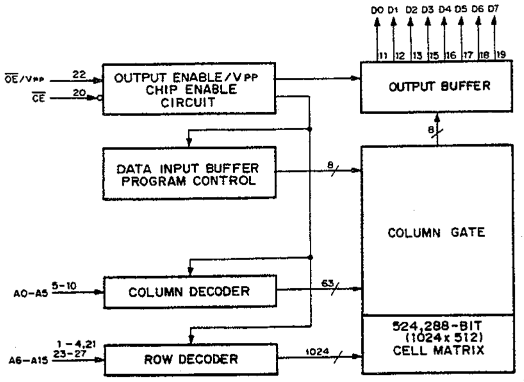

A15 1
A12 2
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
D0 11
D1 12
D2 13
14 GND
VDD (+5V) 28
27 A14
26 A13
25 A8
24 A9
23 A11
22 OE/Vpp
21 A10
20 CE
19 D7
18 D6
17 D5
16 D4
15 D3


A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
D0
D1
D2
D3
D4
D5
D6
D7
CE
OE/Vpp
20
22

A0 – A15 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 – D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
VPP : PROGRAM POWER SUPPLY

An	CE	$\overline{OE}$/VPP	VDD	Dn	FUNCTION
AIN	0	0	+5V	DOUT	READ
AIN	0	1	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	HI-Z	STANDBY
AIN	0	+12.5V	+6V	DIN	PGM
AIN	0	0	+6V	DOUT	PGM VERIFY
X	1	+12.5V	+6V	HI-Z	PGM INH

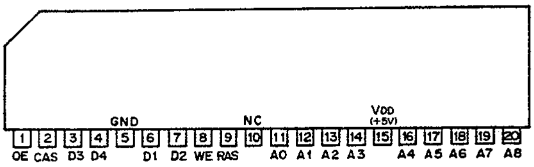
0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
HI-Z : HIGH IMPEDANCE

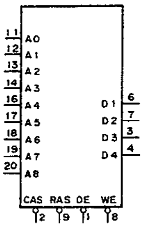

D0 D1 D2 D3 D4 D5 D6 D7
11 12 13 15 16 17 18 19
OE/Vpp 22
CE 20
OUTPUT ENABLE/VPP CHIP ENABLE CIRCUIT
OUTPUT BUFFER
8
DATA INPUT BUFFER PROGRAM CONTROL
8
COLUMN GATE
A0–A5 5–10
COLUMN DECODER
63
A6–A15 1–4,21 23–27
ROW DECODER
1024
524,288-BIT (1024x 512) CELL MATRIX

TMS44C256-10SDL (TI)

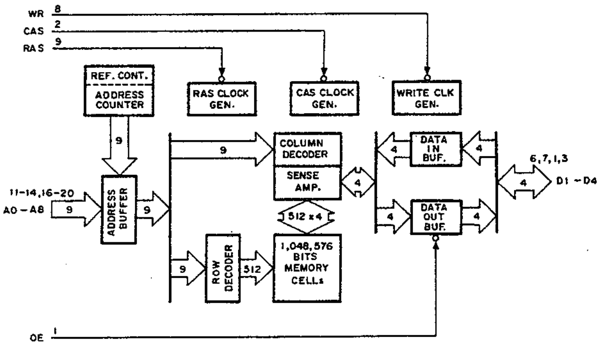
C-MOS 1,048,576-BIT (262,144x4) DYNAMIC RAM

– SIDE VIEW –

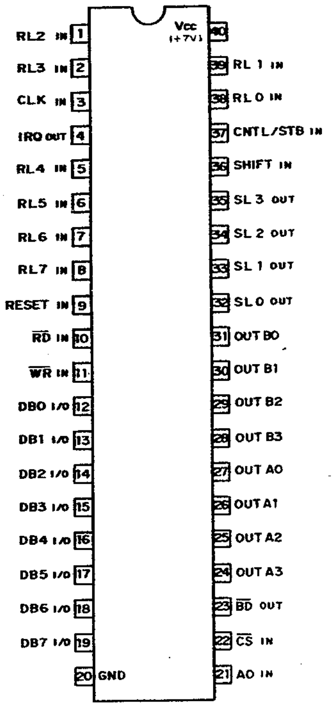

GND
NC
VDD (+5V)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
OE CAS D3 D4 D1 D2 WE RAS A0 A1 A2 A3 A4 A5 A6 A7 A8

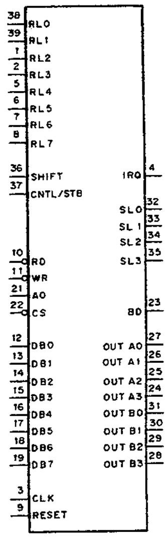

A0
A1
A2
A3
A4
A5
A6
A7
A8
D1
D2
D3
D4
CAS
RAS
OE
WE

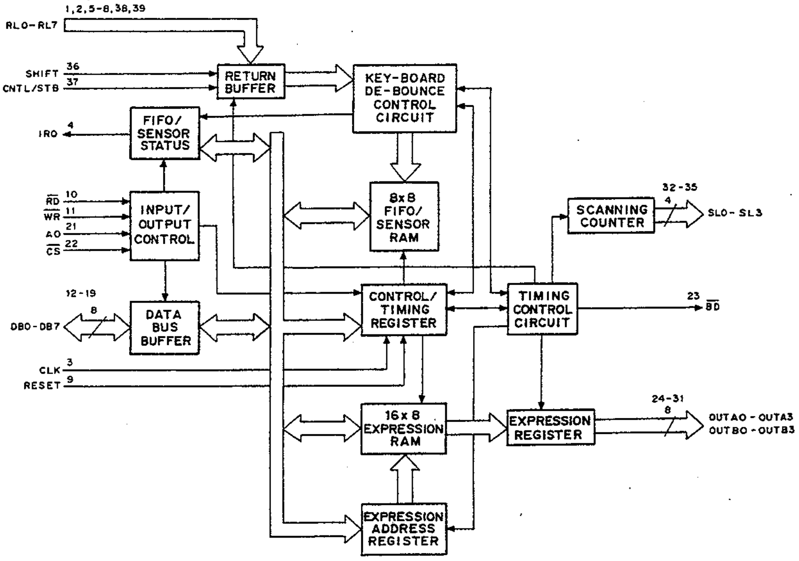
A0–A8 ; ADDRESS INPUT
CAS ; COLUMN ADDRESS STROBE
D1–D4 ; DATA IN/OUT
OE ; OUTPUT ENABLE
RAS ; ROW ADDRESS STROBE
WE ; WRITE ENABLE


WR 8
CAS 2
RAS 9
REF. CONT.
ADDRESS COUNTER
RAS CLOCK GEN.
CAS CLOCK GEN.
WRITE CLK GEN.
COLUMN DECODER
SENSE AMP.
DATA IN BUF.
DATA OUT BUF.
6,7,1,3
D1 – D4
11–14,16–20
A0 – A8
ADDRESS BUFFER
512 x 4
ROW DECODER
512
1,048,576 BITS MEMORY CELLS
OE 1

TMP82C79M-2 (TOSHIBA) FLAT PACKAGE
C-MOS PROGRAMABLE KEY-BOARD/DISPLAY INTERFACE DEVICE
– TOP VIEW –

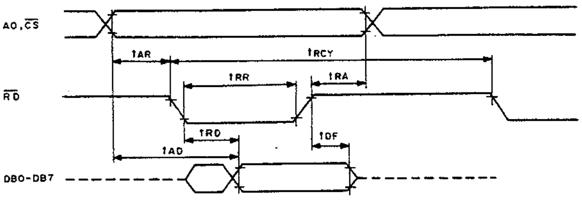

RL2 IN 1
RL3 IN 2
CLK IN 3
IRQ OUT 4
RL4 IN 5
RL5 IN 6
RL6 IN 7
RL7 IN 8
RESET IN 9
$\overline{RD}$ IN 10
$\overline{WR}$ IN 11
DB0 I/O 12
DB1 I/O 13
DB2 I/O 14
DB3 I/O 15
DB4 I/O 16
DB5 I/O 17
DB6 I/O 18
DB7 I/O 19
20 GND
Vcc (+7V) 40
39 RL 1 IN
38 RL 0 IN
37 CNTL/STB IN
36 SHIFT IN
35 SL 3 OUT
34 SL 2 OUT
33 SL 1 OUT
32 SL 0 OUT
31 OUT B0
30 OUT B1
29 OUT B2
28 OUT B3
27 OUT A0
26 OUT A1
25 OUT A2
24 OUT A3
23 $\overline{BD}$ OUT
22 $\overline{CS}$ IN
21 A0 IN


38 RL0
39 RL1
1 RL2
2 RL3
5 RL4
6 RL5
7 RL6
8 RL7
36 SHIFT
37 CNTL/STB
10 RD
11 WR
21 A0
22 CS
12 DB0
13 DB1
14 DB2
15 DB3
16 DB4
17 DB5
18 DB6
19 DB7
3 CLK
9 RESET
IRQ 4
SL0 32
SL1 33
SL2 34
SL3 35
BD 23
OUT A0 27
OUT A1 26
OUT A2 25
OUT A3 24
OUT B0 31
OUT B1 30
OUT B2 29
OUT B3 28

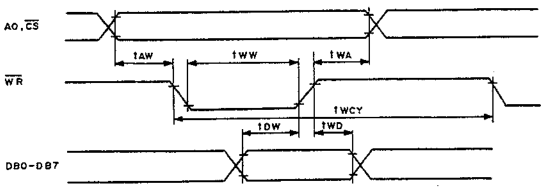

1,2,5-8,38,39
RL0-RL7
SHIFT 36
CNTL/STB 37
RETURN BUFFER
KEY-BOARD DE-BOUNCE CONTROL CIRCUIT
IRQ 4
FIFO/ SENSOR STATUS
8x8 FIFO/ SENSOR RAM
$\overline{RD}$ 10
$\overline{WR}$ 11
A0 21
$\overline{CS}$ 22
INPUT/ OUTPUT CONTROL
SCANNING COUNTER
32-35
4
SL0-SL3
12-19
8
DB0-DB7
DATA BUS BUFFER
CONTROL/ TIMING REGISTER
TIMING CONTROL CIRCUIT
23 $\overline{BD}$
CLK 3
RESET 9
16x8 EXPRESSION RAM
EXPRESSION REGISTER
24-31
8
OUTA0-OUTA3
OUTB0-OUTB3
EXPRESSION ADDRESS REGISTER

A0 ; COMMAND/DATA CONTROL INPUT
$\overline{BD}$; DISPLAY BLANKING OUTPUT
CLK ; CLOCK INPUT
CNTL/$\overline{STB}$; CONTROL/STROBE INPUT
$\overline{CS}$; CHIP SELECT INPUT
DB0-DB7 ; DATA BUS INPUT/OUTPUT
IRQ ; INTERRUPT REQUEST OUTPUT
OUT A0-A3
OUT B0-B3 ; 16x4 BIT EXPRESSION REFRESH REGISTER
$\overline{RD}$; READ STROBE INPUT
RESET ; RESET INPUT
RL0-RL7 ; RETURN LINE INPUT
SHIFT ; SHIFT INPUT
SL0-SL3 ; SCANNING LINE OUTPUT
$\overline{WR}$; WRITE STROBE INPUT

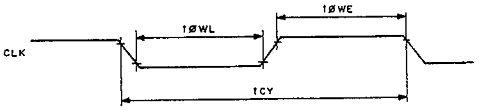
READ


A0,$\overline{CS}$
tAR
tRCY
tRR
tRA
$\overline{RD}$
tRD
tDF
tAD
DB0-DB7

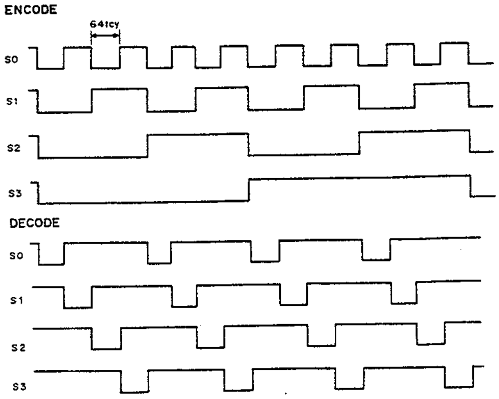
WRITE


A0,$\overline{CS}$
tAW
tWW
tWA
$\overline{WR}$
tWCY
tDW
tWD
DB0-DB7

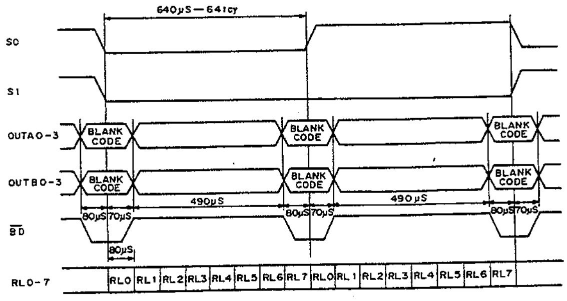
CLOCK


tφWE
tφWL
CLK
tCY

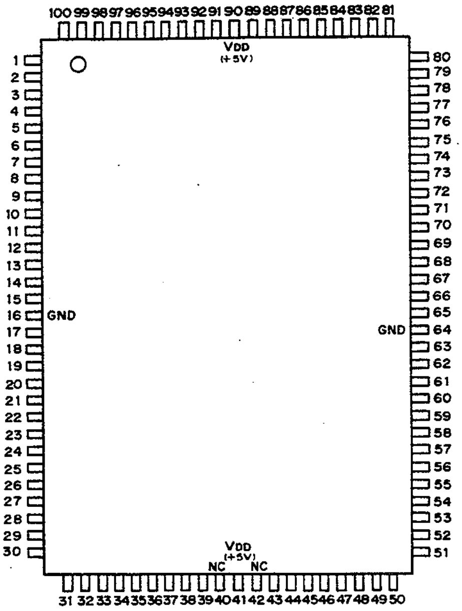
SCANNING


ENCODE
64tcy
S0
S1
S2
S3
DECODE
S0
S1
S2
S3

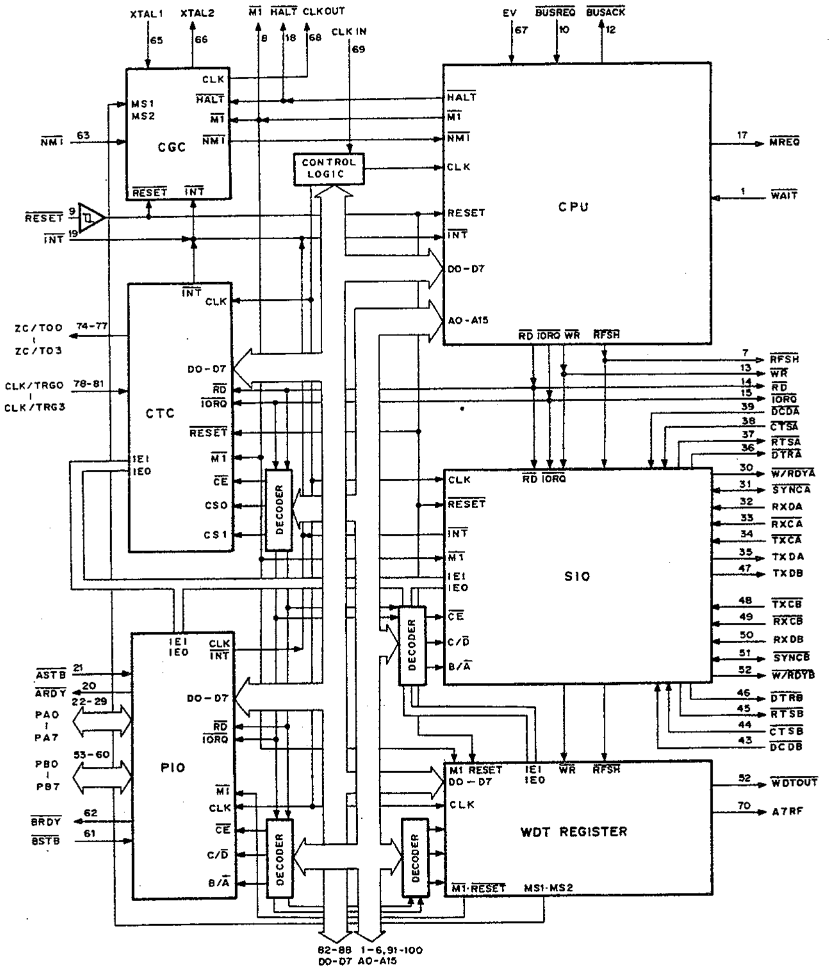
EXPRESSION

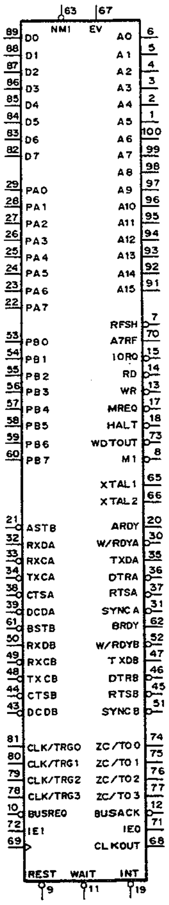

640μS—64tcy
S0
S1
OUTA0-3
BLANK CODE
OUTB0-3
BLANK CODE
490μS
490μS
80μS 70μS
$\overline{BD}$
80μS
RL0-7
RL0 RL1 RL2 RL3 RL4 RL5 RL6 RL7 RL0 RL1 RL2 RL3 RL4 RL5 RL6 RL7

TMPZ84C015BF-6 (TOSHIBA) FLAT PACKAGE
C-MOS 8-BIT MICROPROCCESSOR
– TOP VIEW –


VDD (+5V)
GND
GND
VDD (+5V)
NC
NC
1–100

NO.	IN	OUT	SYMBOL	NO.	IN	OUT	SYMBOL
1		O	A5	51	O	O	SYNCB
2		O	A4	52		O	W/RDYB
3		O	A3	53	O	O	PB0
4		O	A2	54	O	O	PB1
5		O	A1	55	O	O	PB2
6		O	A0	56	O	O	PB3
7		O	RFSH	57	O	O	PB4
8		O	M1	58	O	O	PB5
9	O		REST	59	O	O	PB6
10	O		BUSREQ	60	O	O	PB7
11	O		WAIT	61	O		BSTB
12		O	BUSACK	62		O	BRDY
13		O	WR	63	O		NMI
14		O	RD	64			GND
15		O	IORQ	65	O		XTAL1
16			GND	66		O	XTAL2
17		O	MREQ	67	O		EV
18		O	HALT	68		O	CLKOUT
19	O		INT	69	O		CLKIN
20		O	ARDY	70		O	A7RF
21	O		ASTB	71		O	IEO
22	O	O	PA7	72	O		IEI
23	O	O	PA6	73		O	WDTOUT
24	O	O	PA5	74		O	ZC/TO0
25	O	O	PA4	75		O	ZC/TO1
26	O	O	PA3	76		O	ZC/TO2
27	O	O	PA2	77		O	ZC/TO3
28	O	O	PA1	78	O		CLK/TRG3
29	O	O	PA0	79	O		CLK/TRG2
30		O	W/RDYA	80	O		CLK/TRG1
31	O	O	SYNCA	81	O		CLK/TRG0
32	O		RXDA	82	O	O	D7
33	O		RXCA	83	O	O	D6
34	O		TXCA	84	O	O	D5
35		O	TXDA	85	O	O	D4
36		O	DTRA	86	O	O	D3
37		O	RTSA	87	O	O	D2
38	O		CTSA	88	O	O	D1
39	O		DCDA	89	O	O	D0
40			NC	90			VDD
41			VDD	91		O	A15
42			NC	92		O	A14
43	O		DCDB	93		O	A13
44	O		CTSB	94		O	A12
45		O	RTSB	95		O	A11
46		O	DTRB	96		O	A10
47		O	TXDB	97		O	A9
48	O		TXCB	98		O	A8
49	O		RXCB	99		O	A7
50	O		RXDB	100		O	A6


XTAL1 65
XTAL2 66
M1 8
HALT 18
CLKOUT 68
CLK IN 69
EV 67
BUSREQ 10
BUSACK 12
CGC
MS1
MS2
CLK
HALT
M1
NMI
RESET
INT
NMI 63
RESET 9
INT 19
CONTROL LOGIC
CPU
HALT
M1
NMI
CLK
RESET
INT
D0–D7
A0–A15
RD IORQ WR RFSH
17 MREQ
1 WAIT
CTC
INT
CLK
D0–D7
RD
IORQ
RESET
M1
CE
CS0
CS1
IEI
IEO
ZC/TO0 – ZC/TO3 74–77
CLK/TRG0 – CLK/TRG3 78–81
DECODER
7 RFSH
13 WR
14 RD
15 IORQ
39 DCDA
38 CTSA
37 RTSA
36 DTRA
30 W/RDYA
31 SYNCA
32 RXDA
33 RXCA
34 TXCA
35 TXDA
47 TXDB
48 TXCB
49 RXCB
50 RXDB
51 SYNCB
52 W/RDYB
46 DTRB
45 RTSB
44 CTSB
43 DCDB
SIO
CLK
RD IORQ
RESET
INT
M1
IEI
IEO
CE
C/D
B/A
PIO
IEI
IEO
CLK
INT
D0–D7
RD
IORQ
M1
CLK
CE
C/D
B/A
ASTB 21
ARDY 20
PA0–PA7 22–29
PB0–PB7 53–60
BRDY 62
BSTB 61
WDT REGISTER
M1 RESET
D0–D7
IEI IEO
WR
RFSH
CLK
M1·RESET
MS1·MS2
52 WDTOUT
70 A7RF
82–88 D0–D7
1–6, 91–100 A0–A15


63 NMI
67 EV
89 D0
88 D1
87 D2
86 D3
85 D4
84 D5
83 D6
82 D7
29 PA0
28 PA1
27 PA2
26 PA3
25 PA4
24 PA5
23 PA6
22 PA7
53 PB0
54 PB1
55 PB2
56 PB3
57 PB4
58 PB5
59 PB6
60 PB7
21 ASTB
32 RXDA
33 RXCA
34 TXCA
38 CTSA
39 DCDA
61 BSTB
50 RXDB
49 RXCB
48 TXCB
44 CTSB
43 DCDB
81 CLK/TRG0
80 CLK/TRG1
79 CLK/TRG2
78 CLK/TRG3
10 BUSREQ
72 IEI
69
A0 6
A1 5
A2 4
A3 3
A4 2
A5 1
A6 100
A7 99
A8 98
A9 97
A10 96
A11 95
A12 94
A13 93
A14 92
A15 91
RFSH 7
A7RF 70
IORQ 15
RD 14
WR 13
MREQ 17
HALT 18
WDTOUT 73
M1 8
XTAL1 65
XTAL2 66
ARDY 20
W/RDYA 30
TXDA 35
DTRA 36
RTSA 37
SYNCA 31
BRDY 62
W/RDYB 52
TXDB 47
DTRB 46
RTSB 45
SYNCB 51
ZC/TO0 74
ZC/TO1 75
ZC/TO2 76
ZC/TO3 77
BUSACK 12
IEO 71
CLKOUT 68
REST 9
WAIT 11
INT 19

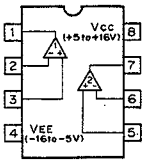
A0 – A15	; 3-STATE ADDRESS BUS OUTPUTS
$\overline{BUSACK}$	; BUS ACKNOWLEDGE OUTPUT
$\overline{BUSREQ}$	; BUS REQUEST INPUT
CLK/TRIG0 – 3	; EXTERNAL CLOCK/TIMER TRIGGER 0 – 3 INPUTS
D0 – D7	; 3-STATE DATA BUS INPUTS/OUTPUTS
EV	; EVALUATER INPUT
$\overline{HALT}$	; HALT OUTPUT
IEI/IEO	; CTC INTERRUPT ENABLE INPUT/OUTPUT
$\overline{INT}$	; MASKABLE INTERRUPT REQUEST/INPUT
$\overline{IORQ}$	; 3-STATE I/O REQUEST OUTPUT
$\overline{MI}$	; 3-STATE MACHINE CYCLE 1 OUTPUT
$\overline{MREQ}$	; 3-STATE MEMORY REQUEST OUTPUT
$\overline{NMI}$	; NON-MASKABLE INTERRUPT REQUEST INPUT
PA0 – PA7, PB0 – PB7	; 3-STATE I/O PORT
$\overline{RD}$	; 3-STATE READ OUTPUT
$\overline{REST}$	; RESET INPUT
$\overline{RFSH}$	; REFRESH OUTPUT
$\overline{WAIT}$	; WAIT REQUEST INPUT

$\overline{WR}$	; 3-STATE WRITE OUTPUT
ZC/TO0 – 3	; ZERO COUNT/TIME OUT 0 – 3 OUTPUTS
$\overline{ASTB}$	; PORT A STROBE PULSE INPUT
ARDY	; REGISTER A READY OUTPUT
$\overline{BSTB}$	; PORT B STROBE PULSE INPUT
BRDY	; REGISTER B READY OUTPUT
$\overline{SYNCA}$, $\overline{SYNCB}$	; SYNC INPUT/OUTPUT
$\overline{W/RADYA}$, $\overline{W/RADYB}$	; WAIT/READY OUTPUT
$\overline{RXDA}$, $\overline{RXDB}$	; SERIAL DATA INPUT
$\overline{RXCA}$, $\overline{RXCB}$	; RECEIVE CLOCK INPUT
$\overline{TXCA}$, $\overline{TXCB}$	; TRANSMISSION CLOCK INPUT
$\overline{TXDA}$, $\overline{TXDB}$	; SERIAL DATA OUTPUT
$\overline{DTRA}$, $\overline{DTRB}$	; DATA TERMINAL READY OUTPUT
$\overline{RTSA}$, $\overline{RTSB}$	; TRANSMISSION REQUEST OUTPUT
$\overline{CTSA}$, $\overline{CTSB}$	; TRANSMISSION ENABLE INPUT
$\overline{DCDA}$, $\overline{DCDB}$	; DATA CARRIER DETECT OUTPUT
$\overline{WDTOUT}$	; WATCH DOG TIMER OUTPUT

UPC814G2-1 (NEC) FLAT PACKAGE

TTL-DUAL OPERATIONAL AMPLIFIER

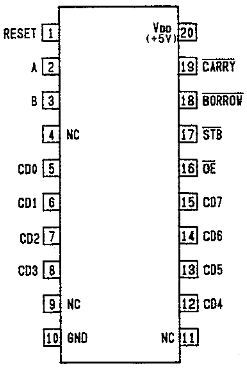
– TOP VIEW –

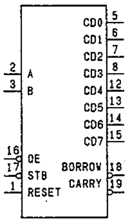

1
2
3
4
Vcc (+5to+16V)
8
7
6
5
VEE (−16to−5V)
1
2
− +
+ −

UPD4702G (NEC)

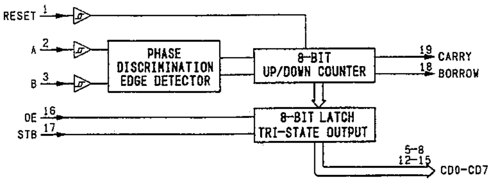
C-MOS INCREMENTAL ENCODER 8BIT UP DOWN COUNTER

– TOP VIEW –


RESET 1
A 2
B 3
4 NC
CD0 5
CD1 6
CD2 7
CD3 8
9 NC
10 GND
VDD (+5V) 20
19 $\overline{CARRY}$
18 $\overline{BORROW}$
17 $\overline{STB}$
16 $\overline{OE}$
15 CD7
14 CD6
13 CD5
12 CD4
NC 11


2 A
3 B
16 OE
17 STB
1 RESET
CD0 5
CD1 6
CD2 7
CD3 8
CD4 12
CD5 13
CD6 14
CD7 15
BORROW 18
CARRY 19

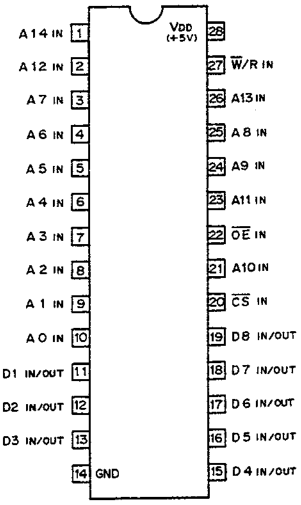
A	;INCREMENTAL SIGNAL (PHASE A) INPUT
B	;INCREMENTAL SIGNAL (PHASE B) INPUT
BORROW	;BORROW PULSE OUTPUT
CARRY	;CARRY PULSE OUTPUT
CD0–7	;COUNT DATA OUTPUT
$\overline{OE}$	;OUTPUT CONTROL SIGNAL INPUT
RESET	;COUNTER RESET INPUT
$\overline{STB}$	;LATCH STROBE SIGNAL INPUT

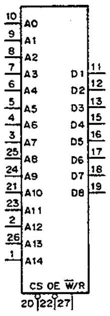

RESET 1
A 2
B 3
PHASE DISCRIMINATION EDGE DETECTOR
8-BIT UP/DOWN COUNTER
19 CARRY
18 BORROW
OE 16
STB 17
8-BIT LATCH TRI-STATE OUTPUT
5-8 12-15
CD0-CD7

UPD43256AGU-10LL (NEC)

C-MOS 262144-BIT (32768x8) STATIC RAM

– TOP VIEW –

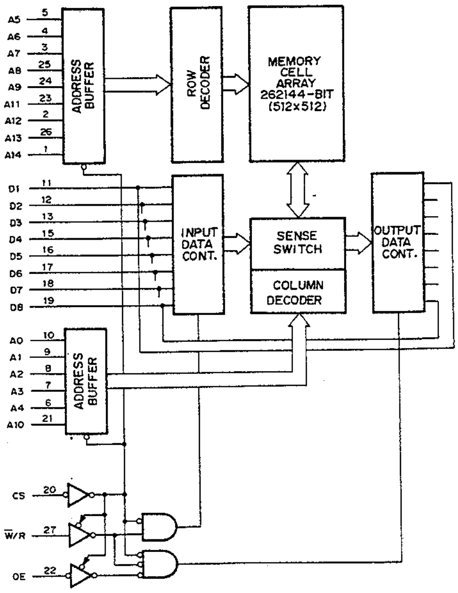

A14 IN 1
A12 IN 2
A7 IN 3
A6 IN 4
A5 IN 5
A4 IN 6
A3 IN 7
A2 IN 8
A1 IN 9
A0 IN 10
D1 IN/OUT 11
D2 IN/OUT 12
D3 IN/OUT 13
14 GND
VDD (+5V) 28
27 $\overline{W}$/R IN
26 A13 IN
25 A8 IN
24 A9 IN
23 A11 IN
22 $\overline{OE}$ IN
21 A10 IN
20 $\overline{CS}$ IN
19 D8 IN/OUT
18 D7 IN/OUT
17 D6 IN/OUT
16 D5 IN/OUT
15 D4 IN/OUT


10 A0
9 A1
8 A2
7 A3
6 A4
5 A5
4 A6
3 A7
25 A8
24 A9
21 A10
23 A11
2 A12
26 A13
1 A14
D1 11
D2 12
D3 13
D4 15
D5 16
D6 17
D7 18
D8 19
CS OE $\overline{W}$/R
20 22 27

A0–A14 ; ADDRESS INPUTS
D1 – D8 ; DATA INPUTS/OUTPUTS
CS ; CHIP SELECT INPUT
OE ; OUTPUT ENABLE INPUT
$\overline{W}$/R ; $\overline{WRITE}$/READ INPUT

INPUTS			MODE	OUTPUT STATUS
CS	OE	$\overline{W}$/R		
1	X	X	NO SELECTION	HI–Z
0	1	1	OUTPUT DISABLE	
0	0	1	READ	D OUT
0	X	0	WRITE	D IN

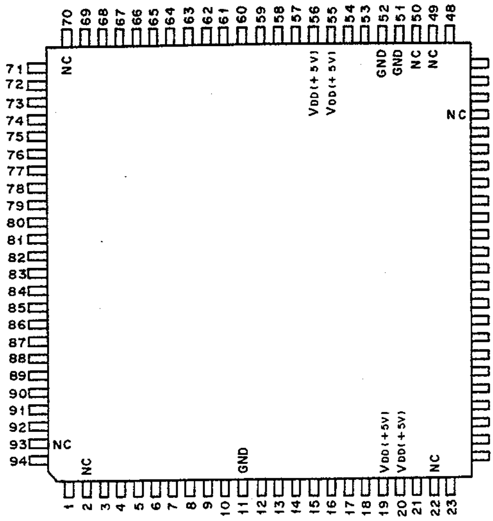
0 ; LOW LEVEL X ; DON'T CARE
1 ; HIGH LEVEL HI–Z ; HIGH IMPEDANCE


A5 5
A6 4
A7 3
A8 25
A9 24
A11 23
A12 2
A13 26
A14 1
ADDRESS BUFFER
ROW DECODER
MEMORY CELL ARRAY 262144-BIT (512x512)
D1 11
D2 12
D3 13
D4 15
D5 16
D6 17
D7 18
D8 19
INPUT DATA CONT.
SENSE SWITCH
COLUMN DECODER
OUTPUT DATA CONT.
A0 10
A1 9
A2 8
A3 7
A4 6
A10 21
ADDRESS BUFFER
CS 20
$\overline{W}$/R 27
OE 22

UPD70320GJ-8-5BG (NEC)

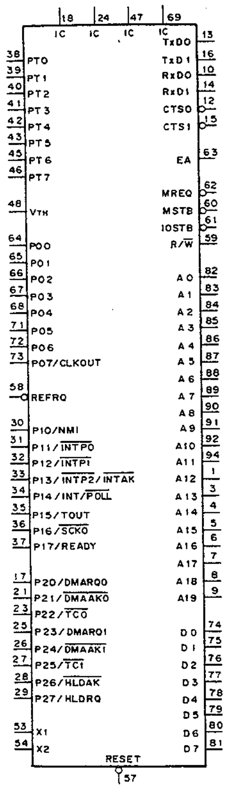
C-MOS SINGLE CHIP 16/8-BIT MICROCOMPUTER

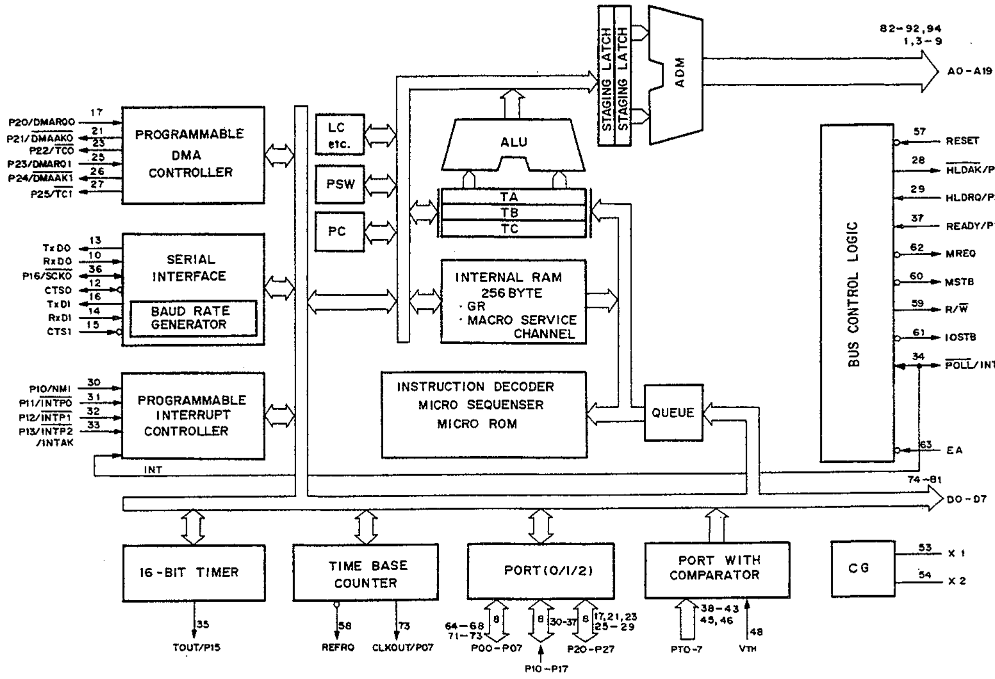
– TOP VIEW –


NC
VDD(+5V)
VDD(+5V)
GND
GND
NC
NC
NC
NC
NC
GND
VDD(+5V)
VDD(+5V)
NC

(VDD = +5V)

PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	O	A12	33	I/O	P13/INTP2/INTAK	65	I/O	P01
2	–	NC	34	I/O	P14/INT/POLL	66	I/O	P02
3	O	A13	35	I/O	P15/TOUT	67	I/O	P03
4	O	A14	36	I/O	P16/SCK0	68	I/O	P04
5	O	A15	37	I/O	P17/READY	69	–	INT.CONNECT
6	O	A16	38	I	PT0	70	–	NC
7	O	A17	39	I	PT1	71	I/O	P05
8	O	A18	40	I	PT2	72	I/O	P06
9	O	A19	41	I	PT3	73	I/O	P07/CLKOUT
10	I	RxD0	42	I	PT4	74	I/O	D0
11	–	GND	43	I	PT5	75	I/O	D1
12	I/O	CTS0	44	–	NC	76	I/O	D2
13	O	TxD0	45	I	PT6	77	I/O	D3
14	I	RxD1	46	I	PT7	78	I/O	D4
15	I	CTS1	47	–	INT.CONNECT	79	I/O	D5
16	O	TxD1	48	–	VTH	80	I/O	D6
17	I/O	P20/DMARQ0	49	–	NC	81	I/O	D7
18	–	INT.CONNECT	50	–	NC	82	O	A0
19	–	VDD	51	–	GND	83	O	A1
20	–	VDD	52	–	GND	84	O	A2
21	I/O	P21/DMAAK0	53	–	X1	85	O	A3
22	–	NC	54	–	X2	86	O	A4
23	I/O	P22/TC0	55	–	VDD	87	O	A5
24	–	INT.CONNECT	56	–	VDD	88	O	A6
25	I/O	P23/DMARQ1	57	I	RESET	89	O	A7
26	I/O	P24/DMAAK1	58	O	REFRQ	90	O	A8
27	I/O	P25/TC1	59	O	R/W	91	O	A9
28	I/O	P26/HLDAK	60	O	MSTB	92	O	A10
29	I/O	P27/HLDRQ	61	O	IOSTB	93	–	NC
30	I	P10/NMI	62	O	MREQ	94	O	A11
31	I	P11/INTP0	63	I	EA			
32	I	P12/INTP1	64	I/O	P00			


IC
IC
IC
IC
PT0
PT1
PT2
PT3
PT4
PT5
PT6
PT7
VTH
P00
P01
P02
P03
P04
P05
P06
P07/CLKOUT
REFRQ
P10/NMI
P11/INTP0
P12/INTP1
P13/INTP2/INTAK
P14/INT/POLL
P15/TOUT
P16/SCK0
P17/READY
P20/DMARQ0
P21/DMAAK0
P22/TC0
P23/DMARQ1
P24/DMAAK1
P25/TC1
P26/HLDAK
P27/HLDRQ
X1
X2
RESET
TxD0
TxD1
RxD0
RxD1
CTS0
CTS1
EA
MREQ
MSTB
IOSTB
R/W
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
A19
D0
D1
D2
D3
D4
D5
D6
D7


PROGRAMMABLE DMA CONTROLLER
P20/DMARQ0
P21/DMAAK0
P22/TC0
P23/DMARQ1
P24/DMAAK1
P25/TC1
SERIAL INTERFACE
BAUD RATE GENERATOR
TxD0
RxD0
P16/SCK0
CTS0
TxD1
RxD1
CTS1
PROGRAMMABLE INTERRUPT CONTROLLER
P10/NMI
P11/INTP0
P12/INTP1
P13/INTP2/INTAK
INT
LC etc.
PSW
PC
ALU
TA
TB
TC
INTERNAL RAM 256 BYTE
· GR
· MACRO SERVICE CHANNEL
INSTRUCTION DECODER
MICRO SEQUENSER
MICRO ROM
STAGING LATCH
STAGING LATCH
ADM
QUEUE
BUS CONTROL LOGIC
82-92, 94
1, 3-9
A0-A19
RESET
HLDAK/P26
HLDRQ/P27
READY/P17
MREQ
MSTB
R/W
IOSTB
POLL/INT/P14
EA
74-81
D0-D7
16-BIT TIMER
TIME BASE COUNTER
PORT (0/1/2)
PORT WITH COMPARATOR
CG
X1
X2
TOUT/P15
REFRQ
CLKOUT/P07
P00-P07
P10-P17
P20-P27
PT0-7
VTH

INPUT

DMARQ0 : DMA REQUEST CH0, CH1 INPUTS
DMARQ1
EA : ROM-LESS MODE SET INPUT
HLDRQ : HOLD REQUEST INPUT
INTP0, INTP1 : INTERRUPT REQUEST INPUTS
INTP2 : INTERRUPT REQUEST INPUT
INT/$\overline{\text{POLL}}$: INTERRUPT REQUEST INPUT
NMI : NON-MASKABLE INTERRUPT INPUT
PT0 – PT7 : PORT 0 INPUTS
READY : READY INPUT
RESET : RESET INPUT
RXD0, RXD1 : SERIAL DATA INPUTS
VTH : REF. V FOR COMPARATOR INPUT
X1, X2 : CRYSTAL 1, 2

INPUT/OUTPUT

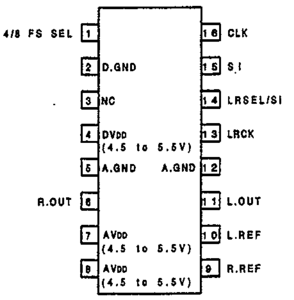
CTS0, CTS1 : CLEAR TO SEND INPUT/OUTPUT
D0 – D7 : DATA BUS INPUTS/OUTPUTS
P00 – P07 : PORT 0 INPUTS/OUTPUTS
P10 – P17 : PORT 1 INPUTS/OUTPUTS
P20 – P27 : PORT 2 INPUTS/OUTPUTS

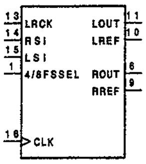
OUTPUT

A0 – A19 : ADDRESS BUS OUTPUTS
CLKOUT : SYSTEM CLOCK OUTPUT
DMAAK0 : DMA ACKNOWLEDGE CH0, CH1 OUTPUTS
DMAAK1 : HOLD ACKNOWLEDGE OUTPUT
HLDAK
INTAK : INTERRUPT ACKNOWLEDGE OUTPUT
IOSTB : I/O READ/WRITE STROBE OUTPUT
MREQ : MEMORY REQUEST OUTPUT
MSTB : MEMORY READ/WRITE STROBE OUTPUT
REFRQ : REFRESH REQUEST OUTPUT
R/$\overline{\text{W}}$: READ AND WRITE CYCLE OUTPUT
SCKO : SERIAL CLOCK OUTPUT
TC0, TC1 : DMA (CH0/CH1) ENDING OUTPUTS
TOUT : TIMER OUTPUT
TXD0, TXD1 : SERIAL DATA OUTPUTS

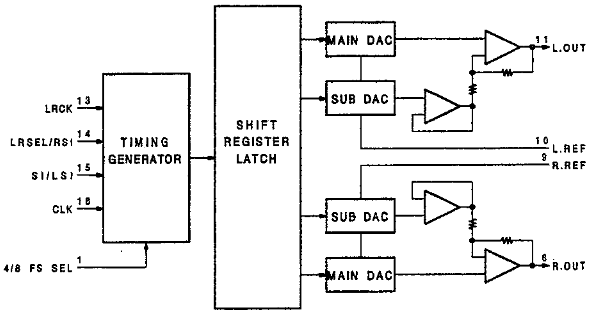
UPD6376GS (NEC) FLAT PACKAGE

C-MOS 16BIT D/A CONVERTER FOR AUDIO
-TOP VIEW-


4/8 FS SEL 1
2 D.GND
3 NC
4 DVDD (4.5 to 5.5V)
5 A.GND
R.OUT 6
7 AVDD (4.5 to 5.5V)
8 AVDD (4.5 to 5.5V)
16 CLK
15 S.I
14 LRSEL/SI
13 LRCK
12 A.GND
11 L.OUT
10 L.REF
9 R.REF

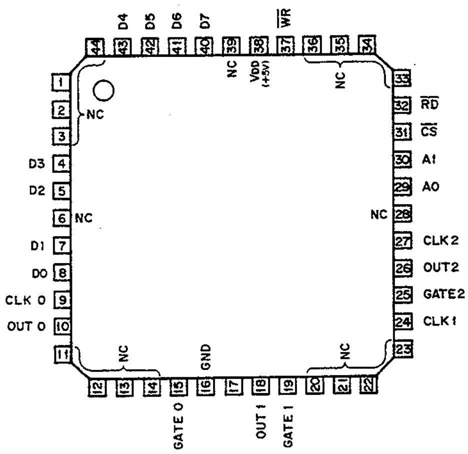

13 LRCK
14 RSI
15 LSI
1 4/8FSSEL
16 CLK
LOUT 11
LREF 10
ROUT 6
RREF 9

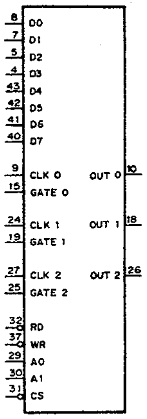
INPUT
4/8FS SEL ;' LOW or OPEN' ;LCH AND RCH SERIAL DATAINPUT FROM 15PIN
;' HIGH' ;LCH SERIAL DATA INPUT FROM 15PIN
RCH SERIAL DATA INPUT FROM 14PIN
LRCK/WDCK ;LEFT/RIGHT CLOCK(4/8FS SEL;' LOW' or' OPEN')
;WORD CLOCK(4/8FS SEL;' HIGH')
LRSEL/RSI ;LEFT/RIGHT SELECTION (4/8FS SEL;' LOW' or' OPEN')
;R-CH SERIAL DATA INPUT(4/8FS SEL;' HIGH')
SI/LSI ;LCH AND RCH SERIAL DATA INPUT(4/8FS SEL;' LOW' or' OPEN')
;LCH SERIAL DATA INPUT(4/8FS SEL;' HIGH')
CLK ;CLOCK
OUTPUT
R.OUT ;R-CH OUTPUT
R.REF ;R-CH VOLTAGE REFERENCE
L.REF ;L-CH VOLTAGE REFERENCE
L.OUT ;L-CH OUTPUT


LRCK 13
LRSEL/RSI 14
SI/LSI 15
CLK 16
4/8 FS SEL 1
TIMING GENERATOR
SHIFT REGISTER LATCH
MAIN DAC
SUB DAC
SUB DAC
MAIN DAC
11 L.OUT
10 L.REF
9 R.REF
6 R.OUT

UPD71054GB-3B4 (NEC) FLAT PACKAGE

C-MOS PROGRAMMABLE TIMER COUNTER
– TOP VIEW –


D4
D5
D6
D7
WR
44
43
42
41
40
39
38
37
36
35
34
NC
VDD (+5V)
NC
1
2
3
NC
D3 4
D2 5
6 NC
D1 7
D0 8
CLK 0 9
OUT 0 10
11
33
32 RD
31 CS
30 A1
29 A0
NC 28
27 CLK2
26 OUT2
25 GATE2
24 CLK1
23
NC
GND
NC
12
13
14
15
16
17
18
19
20
21
22
GATE 0
OUT 1
GATE 1


8 D0
7 D1
5 D2
4 D3
43 D4
42 D5
41 D6
40 D7
9 CLK 0
15 GATE 0
OUT 0 10
24 CLK 1
19 GATE 1
OUT 1 18
27 CLK 2
25 GATE 2
OUT 2 26
32 RD
37 WR
29 A0
30 A1
31 CS

FUNCTION TABLE

INPUTS					FUNCTION
CS	RD	WR	A1	AO	
0	1	0	0	0	COUNTER NO. 1 WRITE
0	1	0	0	1	COUNTER NO. 2 WRITE
0	1	0	1	0	COUNTER NO. 3 WRITE
0	1	0	1	1	CONTROL WORD WRITE
0	0	1	0	0	COUNTER NO. 1 READ
0	0	1	0	1	COUNTER NO. 2 READ
0	0	1	1	0	COUNTER NO.3 READ
0	0	1	1	1	NO - OPERATION (HI - Z)
1	X	X	X	X	DISABLE (HI - Z)
0	1	1	X	X	NO - OPERATION (HI - Z)

A1,A0 ; SELECTED READ/WRITE OPERATION
CLK n ; COUNTER CLOCK INPUT n
CS ; CHIP SELECT
D7-D0 ; 8-BIT DATA I/O
GATE n; COUNTER GATE INPUT n
IC ; INTERNALLY CONNECTED
OUT n ; COUNTER CLOCK OUTPUT n
RD ; READ COUNTER/STATUS
WR ; WRITE COMMAND/DATA

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE

CONTROL WORD FORMAT

D7	D6	D5	D4	D3	D2	D1	D0
SC1	SC0	RWM1	RWM0	CM2	CM1	CM0	BCD

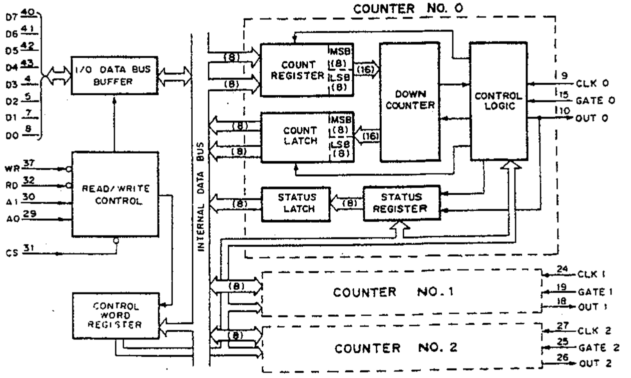
BCD : BINARY CODED DECIMAL

BCD	COUNTER OPERATION
0	16-BIT BINARY COUNT
1	4-FIGURE BCD COUNT

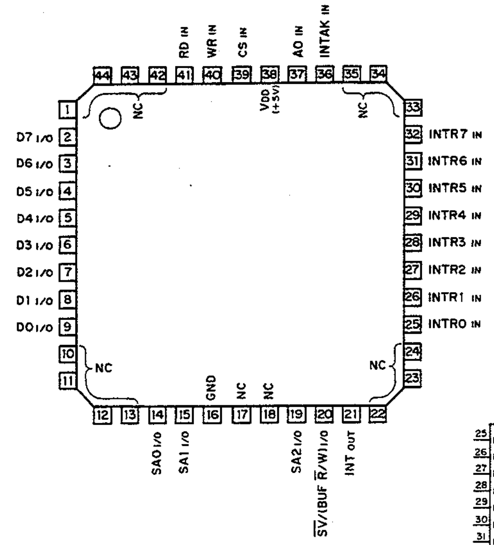
CM2	CM1	CM0	COUNTER MODE
0	0	0	MODE 0
0	0	1	MODE1
X	1	0	MODE 2
X	1	1	MODE 3
1	0	0	MODE 4
1	0	1	MODE 5

RWM1	RWM0	READ/WRITE MODE
0	0	COUNTER LATCHING CMD.
0	1	LSB ONLY
1	0	MSB ONLY
1	1	LSB FIRST THEN MSB

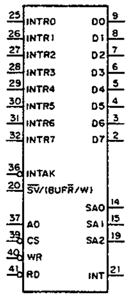
SC1	SC0	OPERATION
0	0	SELECTED COUNTER No.0
0	1	SELECTED COUNTER No.1
1	0	SELECTED COUNTER No.2
1	1	MULTIPLE LATCH COMMAND

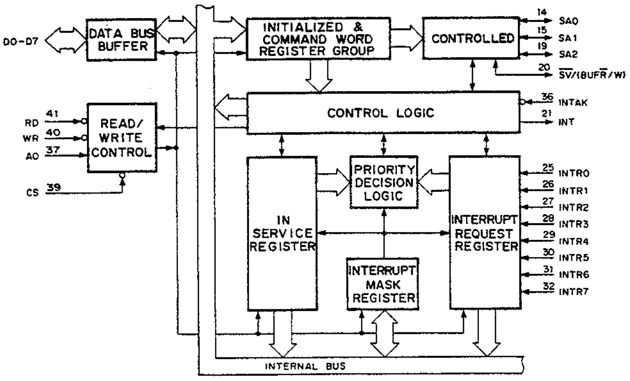

COUNTER NO. 0
D7 40
D6 41
D5 42
D4 43
D3 4
D2 5
D1 7
D0 8
I/O DATA BUS BUFFER
WR 37
RD 32
A1 30
A0 29
CS 31
READ/WRITE CONTROL
CONTROL WORD REGISTER
INTERNAL DATA BUS
(8)
COUNT REGISTER
MSB (8)
LSB (8)
(16)
COUNT LATCH
DOWN COUNTER
CONTROL LOGIC
STATUS LATCH
STATUS REGISTER
9 CLK 0
15 GATE 0
10 OUT 0
COUNTER NO. 1
24 CLK 1
19 GATE 1
18 OUT 1
COUNTER NO. 2
27 CLK 2
25 GATE 2
26 OUT 2

UPD71059GB-3B4 (NEC) FLAT PACKAGE
C-MOS INTERRUPT CONTROL UNIT
– TOP VIEW –


RD IN
WR IN
CS IN
A0 IN
INTAK IN
44
43
42
41
40
39
38
37
36
35
34
NC
VDD (+5V)
NC
1
D7 I/O 2
D6 I/O 3
D5 I/O 4
D4 I/O 5
D3 I/O 6
D2 I/O 7
D1 I/O 8
D0 I/O 9
10
11
NC
33
32 INTR7 IN
31 INTR6 IN
30 INTR5 IN
29 INTR4 IN
28 INTR3 IN
27 INTR2 IN
26 INTR1 IN
25 INTR0 IN
24
23
NC
GND
NC
NC
12
13
14
15
16
17
18
19
20
21
22
SA0 I/O
SA1 I/O
SA2 I/O
$\overline{SV}$/(BUF R/W) I/O
INT OUT

INTR0 – INTR7 ; INTERRUPT REQUEST INPUTS
D0 – D7 ; DATA BUS INPUTS/OUTPUTS
CS ; CHIP SELECT INPUT
RD ; READ STROBE INPUT
WR ; WRITE STROBE INPUT
A0 ; ADDRESS INPUT
INT ; INTERRUPT OUTPUT
INTAK ; INTERRUPT ACKNOWLEDGE INPUT
$\overline{SV}$/(BUF$\overline{R}$/W) ; CONTROLLED/BUFFER READ/WRITE INPUT/OUTPUT
SA0 – SA2 ; CONTROLLED ADDRESS INPUTS/OUTPUTS


25 INTR0
26 INTR1
27 INTR2
28 INTR3
29 INTR4
30 INTR5
31 INTR6
32 INTR7
36 INTAK
20 $\overline{SV}$/(BUF$\overline{R}$/W)
37 A0
39 CS
40 WR
41 RD
D0 9
D1 8
D2 7
D3 6
D4 5
D5 4
D6 3
D7 2
SA0 14
SA1 15
SA2 19
INT 21


D0 – D7
DATA BUS BUFFER
RD 41
WR 40
A0 37
CS 39
READ/ WRITE CONTROL
INITIALIZED & COMMAND WORD REGISTER GROUP
CONTROLLED
14 SA0
15 SA1
19 SA2
20 $\overline{SV}$/(BUF$\overline{R}$/W)
CONTROL LOGIC
36 INTAK
21 INT
IN SERVICE REGISTER
PRIORITY DECISION LOGIC
INTERRUPT MASK REGISTER
INTERRUPT REQUEST REGISTER
25 INTR0
26 INTR1
27 INTR2
28 INTR3
29 INTR4
30 INTR5
31 INTR6
32 INTR7
INTERNAL BUS

SECTION 6
SPARE PARTS

6-1. NOTES ON REPAIR PARTS

(1) Safety Related Components Warning

> Components marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation.
> Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

(2) Standardization of Parts

Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standarzation of genuine parts".
This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present".

(3) Stock of Parts

Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(4) Units for Capacitors, Inductors and Resistors

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors : µF
Inductors : µH
Resistors : Ω

(5) Change of Parts

Regarding engineering parts changes, refer to Section 7. "CHANGED PARTS".

補修用部品注意事項

(1) 安全重要部品

> 回路図、分解図、電気部品表中、⚠印の部品は安全性を維持するために重要な部品です。従ってこれらの部品を交換するときには必ず指定の部品と交換して下さい。

(2) 部品の共通化

ソニーから供給される部品セットに実装されているものと異なることがあります。これは部品の共通化、改良等によるものです。
分解図や電気部品表には現時点での共通化された部品が記載されています。

(3) 部品の在庫

部品表のSP (Supply code) 欄にoで示される部品は交換頻度が低い部品ですので在庫していないことがあり、納期が長くなることがあります。

(4) コンデンサー、インダクター、抵抗の単位

回路図、分解図、電気部品表中、特に明記したものを除き、下記の単位は省略されています。

コンデンサー ： µF
インダクター ： µH
抵抗 ： Ω

(5) 部品の変更

部品の変更に関する情報は第7章「CHANGED PARTS」を参照して下さい。

6-2. EXPLODED VIEWS AND PARTS

No.	Part No.	SP	Description
1 ⚠	A-8267-581-A	s	DECK ASSY, MECHANICAL (Including SV-145 board)
2	A-8275-222-A	o	MOUNTED CIRCUIT BOARD, AU-183 (For J,UC)
	A-8275-223-A	o	MOUNTED CIRCUIT BOARD, AU-183 (For AE,UK)
3	A-8275-224-A	o	MOUNTED CIRCUIT BOARD, AC-146 (For J,UC)
	A-8275-225-A	o	MOUNTED CIRCUIT BOARD, AC-146 (For AE,UK)
4	A-8276-698-A	o	MOUNTED CIRCUIT BOARD, DSP-52
5	A-8276-701-A	o	MOUNTED CIRCUIT BOARD, CN-812
6	A-8276-702-A	o	MOUNTED CIRCUIT BOARD, MB-508
7	X-2068-004-0	s	TERMINAL ASSY
8	X-3167-171-1	o	PANEL ASSY, FRONT
9 ⚠	1-423-796-11	s	TRANSFORMER, POWER (For J,UC)
⚠	1-423-797-11	s	TRANSFORMAR, POWER (For AE,UK)
10 ⚠	1-532-743-11	s	FUSE, GLASS TUBE (For J,AE)
⚠	1-576-228-11	s	FUSE (H.B.C) (For AE,UK)
11	1-558-262-22	o	WIRE, FLEXIBLE CARD
12	1-559-322-11	o	WIRE, FLEXIBLE CARD 22P
13 ⚠	1-952-325-12	o	HARNESS, SUB (AC)
15	1-649-025-11	o	PRINTED CIRCUIT BOARD, JK-43
16	1-952-326-11	o	HARNESS, SUB (MB-3)
17	1-952-327-11	o	HARNESS, SUB (CN-1)
18	1-952-328-11	o	HARNESS, SUB (CN-2)
19	1-952-329-11	o	HARNESS, SUB (CN-3)
20	1-952-330-11	o	HARNESS, SUB (MB-1)
21	1-952-331-11	o	HARNESS, SUB (MB-2)
22	1-952-332-11	o	HARNESS, SUB (JK)
23	1-952-334-11	o	HARNESS, SUB (DSP-1)
24	1-952-335-11	o	HARNESS, SUB (DSP-2)
25	2-068-008-00	s	WASHER
26	2-990-241-02	s	HOLDER (A), PLUG
27	3-181-240-21	s	KEY TOP (D)
28	3-181-708-02	o	PLATE, SWITCH
29	3-181-710-01	o	PLATE, HOLD
30	3-181-712-02	o	PANEL, LOADING
31	3-181-717-02	o	PANEL, BLANK
32	3-181-720-01	s	KEY TOP (B)
33	3-181-721-01	s	KEY TOP (C)
34	3-181-721-11	s	KEY TOP (C)
35	3-181-725-01	o	SHEET (1), REAR PANEL
36	3-181-726-02	o	SHEET (2), REAR PANEL
37	3-181-727-01	s	KEY TOP (A)
38	3-181-727-11	s	KEY TOP (A)
39	3-181-737-01	o	COVER, TOP
40	3-688-814-01	s	CAP, SWITCH
41	3-531-576-01	s	RIVET (Serial No.10001 to 10030 ; For J /20001 to 20035 ; For UC /50001 to 50030 ; For AE /60001 to 60005 ; For UK)
	4-374-303-01	s	RIVET, NYLON (Serial No.10031 and higher ; For J /20036 and higher ; For UC /50031 and higher ; For AE /60006 and higher ; For UK)
43	4-847-802-11	s	SCREW, CASE STOPPER
44	4-902-067-11	s	KNOB, CONTROL
45	4-906-391-01	o	FOOT

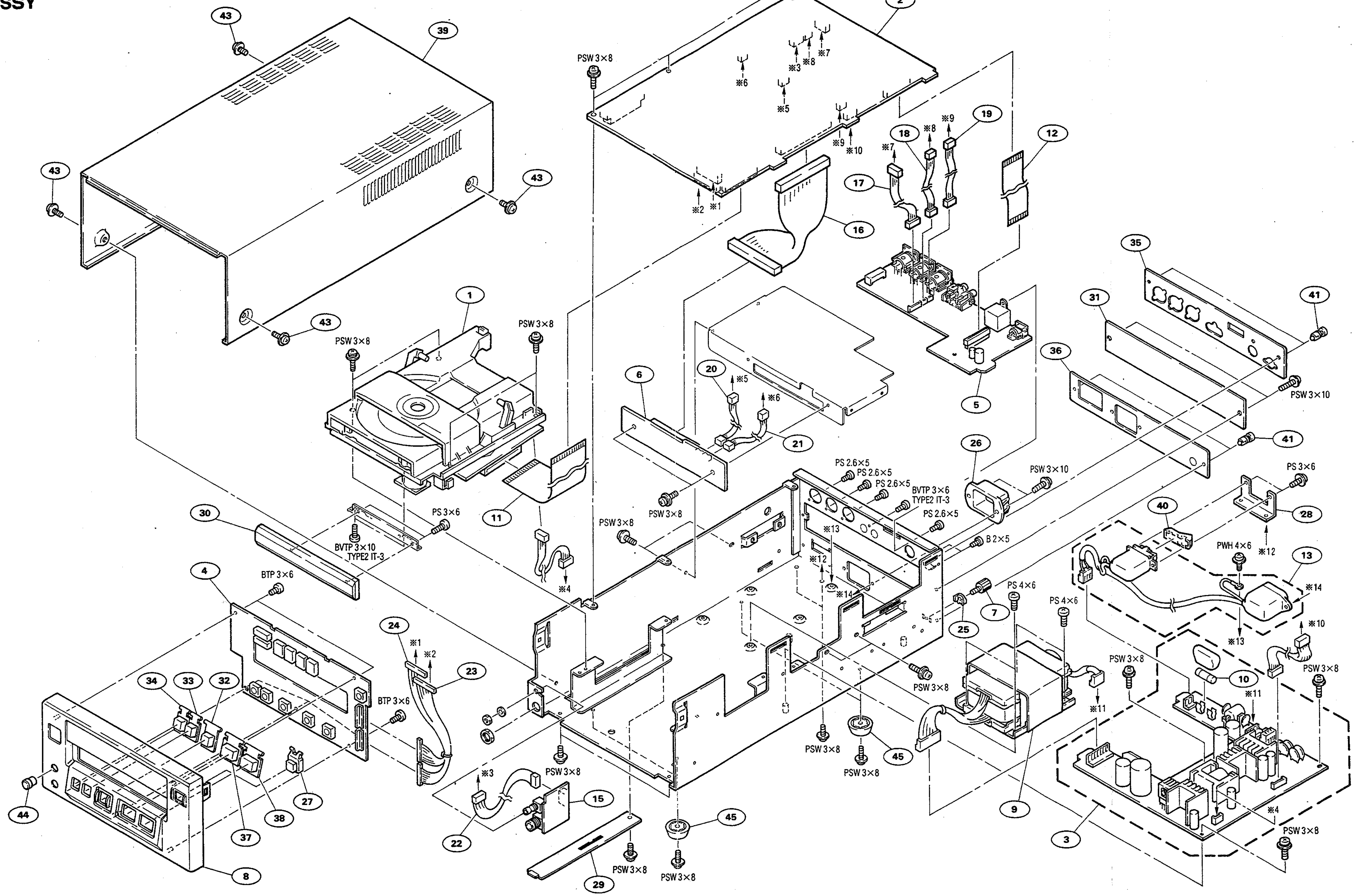
注意；

- SV-145マウント基板は、サービス部品として供給しません。
- SV-145マウント基板のサービス部品は、メカデッキASSYとなります。

Notes;

- The SV-145 mounted board is not supplied as a service part.
- The mechanical deck assembly is supplied for SV-145 mounted board as a service part.

CDP-3100
MAIN ASSY


43
39
43
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43
PSW3×8
2
※6
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※8
※7
※5
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※10
※2
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18
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19
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12
17
16
35
41
31
1
PSW3×8
PSW3×8
36
PSW3×10
20
※5
※6
6
21
5
41
26
PSW3×10
PS2.6×5
PS2.6×5
PS2.6×5
BVTP3×6
TYPE2 IT-3
PS2.6×5
B2×5
PS3×6
28
40
PWH4×6
※12
13
※14
30
PS3×6
11
PSW3×8
PSW3×8
BVTP3×10
TYPE2 IT-3
※13
※12
※14
※4
4
BTP3×6
PS4×6
PS4×6
7
25
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24
※1
※2
23
PSW3×8
PSW3×8
10
PSW3×8
※11
※11
34
33
32
BTP3×6
※3
PSW3×8
PSW3×8
15
PSW3×8
45
27
44
37
38
22
9
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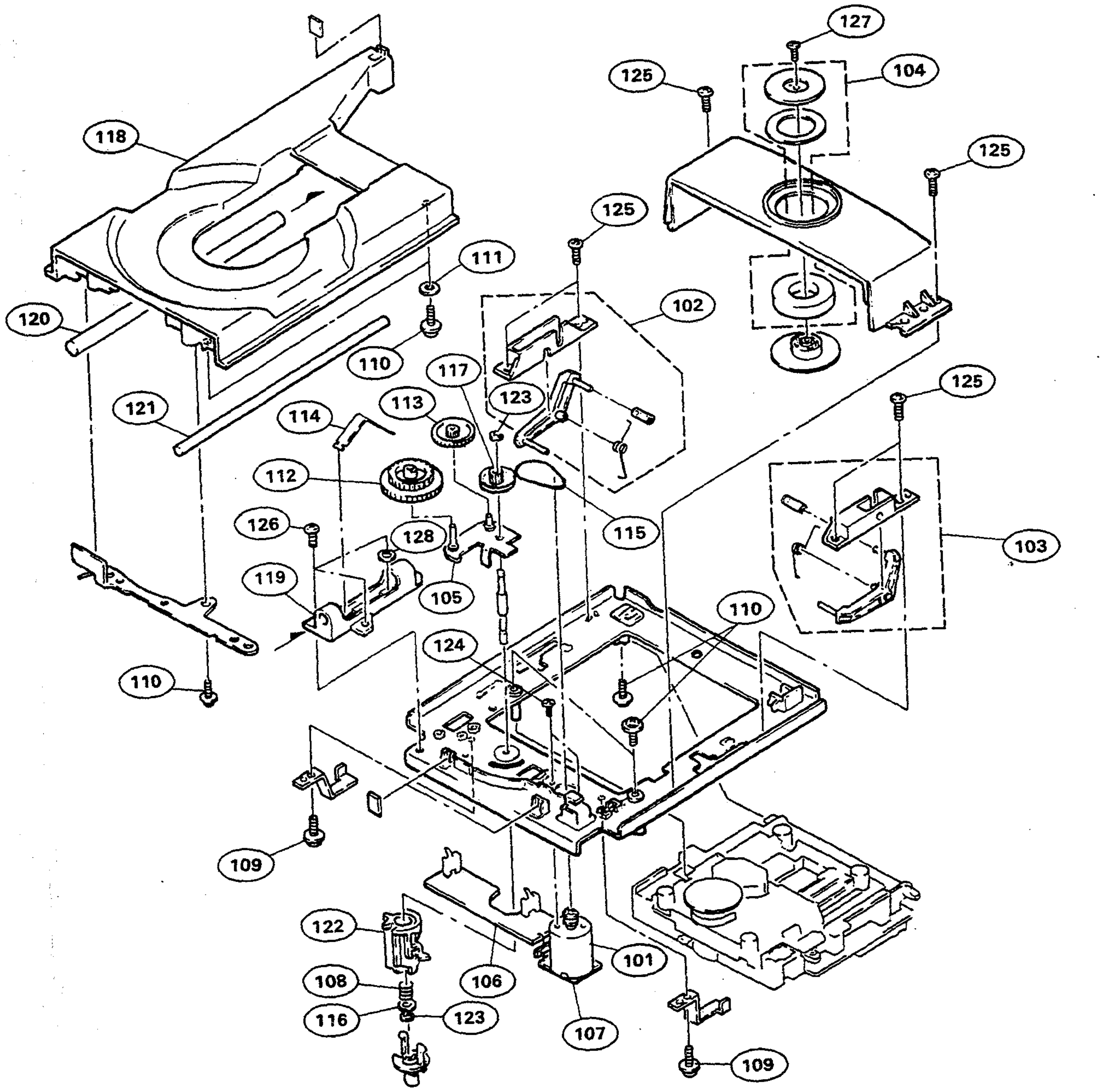
PSW3×8
3
8
PSW3×8
PSW3×8
29

CDP-3100
MECHA DECK ASSY

No.	Part No.	SP	Description
101	A-4604-347-A	s	MOTOR (L) ASSY
102	A-4604-913-A	s	LOCK (L) ASSY, STABLE
103	A-4604-914-A	s	LOCK (R) ASSY, STABLE
104	A-4660-292-A	s	MAGNET ASSY
105	X-4927-608-1	s	ARM ASSY, SWING
106	1-641-764-11	o	PRINTED CIRCUIT BOARD, SW
107	1-641-765-11	o	PRINTED CIRCUIT BOARD, L.MOTOR
108	3-659-338-00	s	SPRING, COMPRESSION
109	3-703-685-21	s	SCREW +BV 3X8
110	4-917-583-21	o	BRACKET, YOKE
111	4-927-318-01	s	WASHER
112	4-927-620-01	s	GEAR (P)
113	4-927-628-01	s	GEAR (C)
114	4-927-648-01	o	SLIDER (GROUND)
115	4-927-649-01	s	BELT
116	4-927-654-01	s	WASHER (LIMITER)
117	4-929-724-01	s	PULLEY (B)
118	4-948-353-03	s	TABLE, DISK
119	4-948-360-01	o	BEARING, LOADING
120	4-948-368-01	o	BAR (MAIN), GUIDE
121	4-948-369-01	o	BAR (SUB), GUIDE
122	4-948-371-01	o	CAM (BU)
123	7-624-105-04	s	STOP RING 2.3, TYPE-E
124	7-682-544-04	s	SCREW +B 3X3
125	7-682-547-09	s	SCREW +B 3X6
126	7-682-548-09	s	SCREW +B 3X8
127	7-685-131-19	s	SCREW +P 2.6X4 TYPE-2 SLIT
128	7-688-003-12	s	W 3, MIDDLE

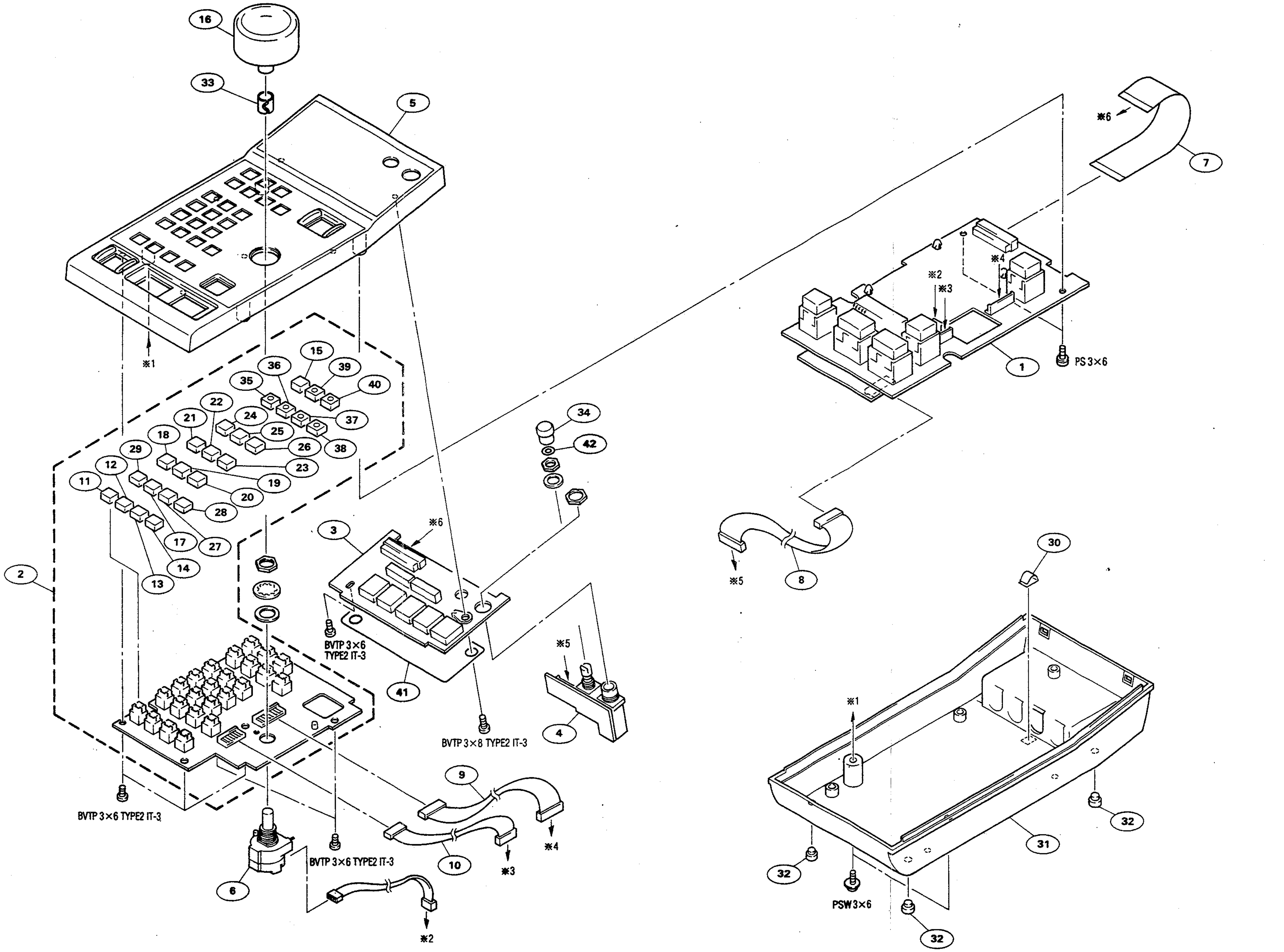
注意；
- メカデッキASSYの部品のうち、左記部品表の部品を除いて、サービス部品として個々では供給しません。
- メカデッキASSY(左記部品表の部品を除く)の部品で不良が発生した場合は、メカデッキASSYを交換して下さい。

Notes;
- Excluding the parts in the parts list left, the parts of mechanical deck assembly are not supplied as service parts.
- When any trouble occurred due to the parts of mechanical deck assembly (excluding the parts in the parts list), replace the whole mechanical deck assembly.



CDS-3100
MAIN ASSY

No.	Part No.	SP	Description
1	A-8275-169-A	o	MOUNTED CIRCUIT BOARD, KC-30 (Including HA-17 board)
2	A-8276-704-A	o	MOUNTED CIRCUIT BOARD, KY-252
3	A-8276-705-A	o	MOUNTED CIRCUIT BOARD, LED-148
4	A-8276-706-A	o	MOUNTED CIRCUIT BOARD, JK-40
5	X-3167-170-1	o	PANEL ASSY, REMOTE CONTROL
6	1-467-350-11	s	ENCODER, ROTARY (OPT.TYPE)
7	1-696-626-11	s	WIRE, FLEXIBLE CARD 20P
8	1-952-333-12	o	HARNESS, SUB (HA)
9	1-952-337-11	o	HARNESS, SUB (KY-1)
10	1-952-338-11	o	HARNESS, SUB (KY-2)
11	2-140-311-01	s	KEY TOP
12	2-140-311-01	s	KEY TOP
13	2-140-311-01	s	KEY TOP
14	2-140-311-01	s	KEY TOP
15	2-140-311-01	s	KEY TOP
16	3-181-160-01	o	DIAL, JOG
17	3-181-167-01	s	KEY TOP (8.5)
18	3-181-167-02	s	KEY TOP (8.5)
19	3-181-167-03	s	KEY TOP (8.5)
20	3-181-167-04	s	KEY TOP (8.5)
21	3-181-167-05	s	KEY TOP (8.5)
22	3-181-167-06	s	KEY TOP (8.5)
23	3-181-167-07	s	KEY TOP (8.5)
24	3-181-167-08	s	KEY TOP (8.5)
25	3-181-167-09	s	KEY TOP (8.5)
26	3-181-167-10	s	KEY TOP (8.5)
27	3-181-167-11	s	KEY TOP (8.5)
28	3-181-167-15	s	KEY TOP (8.5)
29	3-181-167-16	s	KEY TOP (8.5)
30	3-181-714-01	o	FINGER, STICK
31	3-181-734-01	o	CASE, BOTTOM
32	3-701-195-02	s	FOOT, RUBBER
33	4-007-057-12	s	SPRING
34	4-902-067-11	s	KNOB, CONTROL
35	4-928-315-01	s	KEY TOP
36	4-928-315-01	s	KEY TOP
37	4-928-315-01	s	KEY TOP
38	4-928-315-01	s	KEY TOP
39	4-928-315-01	s	KEY TOP
40	4-928-315-01	s	KEY TOP
41	3-183-407-01	o	SHEET 1, SHIELD
42	3-183-408-01	o	SHEET, VOLUME


16
33
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PS3×6
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34
42
BVTP 3×6 TYPE2 IT-3
41
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4
BVTP 3×8 TYPE2 IT-3
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30
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※4
10
※3
BVTP 3×6 TYPE2 IT-3
BVTP 3×6 TYPE2 IT-3
6
※2
31
32
32
PSW3×6
32
32

6-3. ELECTRICAL PARTS LIST

CAPACITOR, CHIP CERAMIC

Part No.	SP	Description
1-163-227-11	s	CAP, CHIP CERAMIC 10pF 5% 50V
1-163-099-00	s	CAP, CHIP CERAMIC 18pF 5% 50V
1-163-235-11	s	CAP, CHIP CERAMIC 22pF 5% 50V
1-163-239-11	s	CAP, CHIP CERAMIC 33pF 5% 50V
1-163-113-00	s	CAP, CHIP CERAMIC 68pF 5% 50V
1-163-251-11	s	CAP, CHIP CERAMIC 100pF 5% 50V
1-163-125-00	s	CAP, CHIP CERAMIC 220pF 5% 50V
1-163-131-00	s	CAP, CHIP CERAMIC 390pF 5% 50V
1-163-133-00	s	CAP, CHIP CERAMIC 470pF 5% 50V
1-163-137-00	s	CAP, CHIP CERAMIC 680pF 5% 50V
1-163-275-11	s	CAP, CHIP CERAMIC 0.001 5% 50V
1-163-011-11	s	CAP, CHIP CERAMIC 0.0015 10% 50V
1-164-161-11	s	CAP, CHIP CERAMIC 0.0022 10% 100V
1-163-017-00	s	CAP, CHIP CERAMIC 0.0047 10% 50V
1-163-019-00	s	CAP, CHIP CERAMIC 0.0068 10% 50V
1-164-232-11	s	CAP, CHIP CEREMIC 0.01 10% 100V
1-163-023-00	s	CAP, CHIP CERAMIC 0.015 10% 50V
1-163-033-00	s	CAP, CHIP CERAMIC 0.022 50V
1-163-034-00	s	CAP, CHIP CERAMIC 0.033 50V
1-163-035-00	s	CAP, CHIP CERAMIC 0.047 50V
1-163-038-91	s	CAP, CHIP CERAMIC 0.1 25V
1-164-222-11	s	CAP, CHIP CEREMIC 0.22 25V
1-164-336-11	s	CAP, CHIP CEREMIC 0.33 25V
1-164-346-11	s	CAP, CHIP CEREMIC 1 16V

CAPACITOR, ELECTROLYTIC

Part No.	SP	Description
1-124-915-11	s	CAP, ELECT 10 20% 63V
1-124-911-11	s	CAP, ELECT 220 20% 50V

RESISTOR, CHIP

Part No.	SP	Description
1-216-295-00	s	RES, CHIP 0 5% 1/10W
1-216-308-00	s	RES, CHIP 4.7 5% 1/10W
1-216-001-00	s	RES, CHIP 10 5% 1/10W
1-216-009-00	s	RES, CHIP 22 5% 1/10W
1-216-017-00	s	RES, CHIP 47 5% 1/10W
1-216-025-00	s	RES, CHIP 100 5% 1/10W
1-216-031-00	s	RES, CHIP 180 5% 1/10W
1-216-033-00	s	RES, CHIP 220 5% 1/10W
1-216-035-00	s	RES, CHIP 270 5% 1/10W
1-216-037-00	s	RES, CHIP 330 5% 1/10W
1-216-043-00	s	RES, CHIP 560 5% 1/10W
1-216-049-00	s	RES, CHIP 1k 5% 1/10W
1-216-057-91	S	RES, CHIP 2.2k 5% 1/10W
1-216-061-00	s	RES, CHIP 3.3k 5% 1/10W
1-216-065-00	s	RES, CHIP 4.7k 5% 1/10W
1-216-067-91	s	RES, CHIP 5.6k 5% 1/10W
1-216-069-00	s	RES, CHIP 6.8k 5% 1/10W
1-216-071-00	s	RES, CHIP 8.2k 5% 1/10W
1-216-073-00	s	RES, CHIP 10k 5% 1/10W
1-216-077-00	s	RES, CHIP 15k 5% 1/10W
1-216-079-00	s	RES, CHIP 18k 5% 1/10W
1-216-081-00	s	RES, CHIP 22k 5% 1/10W
1-216-083-00	s	RES, CHIP 27k 5% 1/10W
1-216-089-91	s	RES, CHIP 47k 5% 1/10W
1-216-091-00	s	RES, CHIP 56k 5% 1/10W
1-216-095-00	s	RES, CHIP 82k 5% 1/10W
1-216-097-00	s	RES, CHIP 100k 5% 1/10W
1-216-105-91	s	RES, CHIP 220k 5% 1/10W
1-216-113-00	s	RES, CHIP 470k 5% 1/10W
1-216-117-00	s	RES, CHIP 680k 5% 1/10W
1-216-121-00	s	RES, CHIP 1M 5% 1/10W

6-3-1. CDP-3100

AC-146 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-224-A	o	MOUNTED CIRCUIT BOARD, AC-146 (For J,UC)
1pc	A-8275-225-A	o	MOUNTED CIRCUIT BOARD, AC-146 (For AE,UK)
2pcs	1-533-189-11	s	HOLDER, FUSE
1pc	3-667-612-01	o	HEAT SINK
3pcs	4-363-147-00	o	HEAT SINK, H.PIN
1pc	4-601-472-00	o	COVER, FUSE
4pcs	7-682-547-09	s	SCREW +B 3X6
1pc	7-682-948-01	s	SCREW +PSW 3X8
C10	⚠ 1-161-744-00	s	CERAMIC 0.01 400V
C11	⚠ 1-161-744-00	s	CERAMIC 0.01 400V
C12	⚠ 1-162-599-12	s	CERAMIC 0.0047 20% 400V
C13	⚠ 1-162-599-12	s	CERAMIC 0.0047 20% 400V
C14	⚠ 1-162-599-12	s	CERAMIC 0.0047 20% 400V
C15	⚠ 1-162-599-12	s	CERAMIC 0.0047 20% 400V
C351	1-130-483-00	s	MYLAR 0.01 5% 50V
C352	1-136-177-11	s	FILM 1 5% 50V
C353	1-126-955-11	s	ELECT 4700 20% 35V
C354	1-126-955-11	s	ELECT 4700 20% 35V
C355	1-164-096-11	s	CERAMIC 0.01 50V
C356	1-164-096-11	s	CERAMIC 0.01 50V
C357	1-126-943-61	s	ELECT 2200 20% 25V
C358	1-126-943-61	s	ELECT 2200 20% 25V
C359	1-164-096-11	s	CERAMIC 0.01 50V
C360	1-164-096-11	s	CERAMIC 0.01 50V
C361	1-130-483-00	s	MYLAR 0.01 5% 50V
C362	1-136-177-11	s	FILM 1 5% 50V
C363	1-128-317-11	s	ELECT 10000 20% 25V
C364	1-126-927-11	s	ELECT 2200 20% 10V
C365	1-164-096-11	s	CERAMIC 0.01 50V
C366	1-128-548-61	s	ELECT 4700 20% 25V
C367	1-126-942-61	s	ELECT 1000 20% 25V
C368	1-126-942-61	s	ELECT 1000 20% 25V
C369	1-130-483-00	s	MYLAR 0.01 5% 50V
C370	1-130-483-00	s	MYLAR 0.01 5% 50V
C371	1-126-927-11	s	ELECT 2200 20% 10V
C372	1-126-927-11	s	ELECT 2200 20% 10V
C373	1-164-096-11	s	CERAMIC 0.01 50V
C374	1-164-096-11	s	CERAMIC 0.01 50V
CN161	1-564-915-11	o	CONNECTOR, VH 7P, MALE
CN162	1-564-321-00	o	CONNECTOR, VH 2P, MALE
CN163	1-565-395-11	o	CONNECTOR, VH 3P, MALE
CN164	1-565-395-11	o	CONNECTOR, VH 3P, MALE
CN165	1-564-509-11	o	PLUG, CONNECTOR 6P
CN166	1-564-004-11	o	CONNECTOR, 5P, MALE
CP351	1-466-721-11	s	CONVERTER UNIT, DC-DC(YDS-205)
D351	8-719-200-02	s	DIODE 10E2
D352	8-719-200-02	s	DIODE 10E2
D353	8-719-200-02	s	DIODE 10E2
D354	8-719-200-02	s	DIODE 10E2
D355	8-719-302-37	s	DIODE RBV-602
D356	8-719-200-02	s	DIODE 10E2
D357	8-719-200-02	s	DIODE 10E2
D358	8-719-200-02	s	DIODE 10E2
D359	8-719-200-02	s	DIODE 10E2
D360	8-719-121-24	s	DIODE RD9.1ESL

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

(AC-146 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D361	8-719-121-24	s	DIODE RD9.1ESL
D362	8-719-911-19	s	DIODE 1SS119
D363	8-719-911-19	s	DIODE 1SS119
F1	⚠ 1-532-743-11	s	FUSE, 2A 125V (For J,UC)
F1	⚠ 1-576-228-11	s	FUSE (H.B.C) (For AE,UK)
IC351	8-759-013-10	s	IC MC7815CT
IC352	8-759-012-72	s	IC MC7915CT
PS351	⚠ 1-532-637-00	s	LINK, IC 1.0A
PS352	⚠ 1-532-637-00	s	LINK, IC 1.0A
Q351	8-729-905-67	s	TRANSISTOR 2SD1944-K
Q352	8-729-924-90	s	TRANSISTOR 2SB1370-EF
R351	⚠ 1-212-877-11	s	RES, FUSIBLE 68 5% 1/4W
R352	⚠ 1-212-942-00	s	RES, FUSIBLE 2.2 5% 1/2W
R353	⚠ 1-212-942-00	s	RES, FUSIBLE 2.2 5% 1/2W
R354	⚠ 1-212-859-00	s	RES, FUSIBLE 12 5% 1/4W
R355	1-249-414-11	s	CARBON 560 5% 1/4W
R356	⚠ 1-212-950-00	s	RES, FUSIBLE 4.7 5% 1/2W
R357	1-249-414-11	s	CARBON 560 5% 1/4W
T1	⚠ 1-421-915-11	s	FILTER, LINE

AU-183 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-222-A	o	MOUNTED CIRCUIT BOARD, AU-183 (For J,UC)
1pc	A-8275-223-A	o	MOUNTED CIRCUIT BOARD, AU-183 (For AE,UK)
1pc	1-526-660-21	s	SOCKET, IC 32P
2pcs	1-695-613-21	o	BUS,MINIATURE(DOUBLE LAYER)6P
2pcs	7-621-770-67	s	SCREW +B 2.6X6
2pcs	7-622-207-05	s	N 2.6, TYPE 2
1pc	7-623-510-01	s	LUG 4
C23	1-104-559-11	s	CHIP, FILM 0.047 5% 16V
C24	1-104-559-11	s	CHIP, FILM 0.047 5% 16V
C25	1-104-559-11	s	CHIP, FILM 0.047 5% 16V
C34	1-126-947-11	s	ELECT 47 20% 35V
C35	1-126-947-11	s	ELECT 47 20% 35V
C70	1-126-947-11	s	ELECT 47 20% 35V
C74	1-102-106-00	s	CEREMIC 100pF 10% 50V
C102	1-126-933-11	s	ELECT 100 20% 16V
C107	1-126-947-11	s	ELECT 47 20% 35V
C108	1-126-947-11	s	ELECT 47 20% 35V
C109	1-126-933-11	s	ELECT 100 20% 16V
C110	1-126-947-11	s	ELECT 47 20% 35V
C112	1-126-933-11	s	ELECT 100 20% 16V
C121	1-126-933-11	s	ELECT 100 20% 16V
C123	1-137-274-11	s	FILM 820PF 5% 100V
C124	1-137-274-11	s	FILM 820PF 5% 100V
C131	1-136-593-11	s	FILM 0.0033 1% 100V
C132	1-136-593-11	s	FILM 0.0033 1% 100V
C133	1-136-593-11	s	FILM 0.0033 1% 100V
C136	1-107-210-00	s	MICA 22PF 5% 500V
C137	1-136-233-11	s	FILM 0.0047 3% 100V
C142	1-126-233-11	s	ELECT 22 20% 50V
C149	1-107-036-00	s	MICA 68PF 5% 500V
C150	1-107-036-00	s	MICA 68PF 5% 500V
C157	1-126-233-11	s	ELECT 22 20% 50V
C165	1-126-233-11	s	ELECT 22 20% 50V
C166	1-126-233-11	s	ELECT 22 20% 50V
C221	1-126-933-11	s	ELECT 100 20% 16V
C223	1-137-274-11	s	FILM 820PF 5% 100V
C224	1-137-274-11	s	FILM 820PF 5% 100V
C231	1-136-593-11	s	FILM 0.0033 1% 100V
C232	1-136-593-11	s	FILM 0.0033 1% 100V
C233	1-136-593-11	s	FILM 0.0033 1% 100V
C236	1-107-210-00	s	MICA 22PF 5% 500V
C237	1-136-233-11	s	FILM 0.0047 3% 100V
C242	1-126-233-11	s	ELECT 22 20% 50V
C249	1-107-036-00	s	MICA 68PF 5% 500V
C250	1-107-036-00	s	MICA 68PF 5% 500V
C257	1-126-233-11	s	ELECT 22 20% 50V
C265	1-126-233-11	s	ELECT 22 20% 50V
C266	1-126-233-11	s	ELECT 22 20% 50V
C301	1-126-933-11	s	ELECT 100 20% 16V
C304	1-126-933-11	s	ELECT 100 20% 16V
C306	1-126-933-11	s	ELECT 100 20% 16V
C308	1-136-177-11	s	FILM 1 5% 50V
C309	1-136-177-11	s	FILM 1 5% 50V
C311	1-136-165-00	s	FILM 0.1 5% 50V
C318	1-136-177-11	s	FILM 1 5% 50V
C331	1-126-926-11	s	ELECT 1000 20% 10V
C332	1-126-940-11	s	ELECT 330 20% 25V

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

(AU-183 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C333	1-124-557-11	s	ELECT 1000 20% 25V
C334	1-130-499-00	s	MYLAR 0.22 5% 50V
C335	1-130-499-00	s	MYLAR 0.22 5% 50V
C337	1-126-933-11	s	ELECT 100 20% 16V
C338	1-126-933-11	s	ELECT 100 20% 16V
C339	1-126-947-91	s	ELECT 47 20% 35V
CN101	1-506-480-11	s	CONNECTOR, 15P, MALE
CN102	1-506-479-11	s	CONNECTOR, 14P, MALE(STRAIGHT TYPE)
CN103	1-562-717-11	o	CONNECTOR, 34P, MALE
CN104	1-568-258-11	o	CONNECTOR, PS 50P, MALE
CN105	1-564-509-11	o	PLUG, CONNECTOR 6P
CN106	1-562-991-11	o	SOCKET, CONNECTOR 22P
CN107	1-506-468-11	s	CONNECTOR, 3P, MALE
CN108	1-564-005-11	s	CONNECTOR, 6P, MALE
CN109	1-506-468-11	s	CONNECTOR, 3P, MALE
CN110	1-506-471-11	s	CONNECTOR, 6P, MALE
CN111	1-564-001-11	o	CONNECTOR, 2P, MALE
CN112	1-506-467-11	s	CONNECTOR, 2P, MALE
CN113	1-563-335-11	s	CONNECTOR, DIN 48P, FEMALE
D1	8-719-400-18	s	DIODE MA152WK
D2	8-719-104-34	s	DIODE 1S2836
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-104-34	s	DIODE 1S2836
D51	8-719-400-18	s	DIODE MA152WK
D52	8-719-400-18	s	DIODE MA152WK
D53	8-719-400-18	s	DIODE MA152WK
D54	8-719-400-18	s	DIODE MA152WK
D55	8-719-400-18	s	DIODE MA152WK
D56	8-719-400-18	s	DIODE MA152WK
D57	8-719-400-18	s	DIODE MA152WK
D58	8-719-400-18	s	DIODE MA152WK
D60	8-719-400-18	s	DIODE MA152WK
D64	8-719-400-18	s	DIODE MA152WK
D111	8-719-104-34	s	DIODE 1S2836
D112	8-719-400-18	s	DIODE MA152WK
D113	8-719-985-35	s	DIODE HZS2ALL
D114	8-719-985-35	s	DIODE HZS2ALL
D115	8-719-800-76	s	DIODE 1SS226
D116	8-719-400-18	s	DIODE MA152WK
D121	8-719-104-34	s	DIODE 1S2836
D122	8-719-400-18	s	DIODE MA152WK
D123	8-719-985-35	s	DIODE HZS2ALL
D124	8-719-985-35	s	DIODE HZS2ALL
D125	8-719-800-76	s	DIODE 1SS226
D131	8-719-400-18	s	DIODE MA152WK
D132	8-719-104-34	s	DIODE 1S2836
D211	8-719-104-34	s	DIODE 1S2836
D212	8-719-400-18	s	DIODE MA152WK
D213	8-719-985-35	s	DIODE HZS2ALL
D214	8-719-985-35	s	DIODE HZS2ALL
D215	8-719-800-76	s	DIODE 1SS226
D221	8-719-104-34	s	DIODE 1S2836
D222	8-719-400-18	s	DIODE MA152WK
D223	8-719-985-35	s	DIODE HZS2ALL
D224	8-719-985-35	s	DIODE HZS2ALL
D225	8-719-800-76	s	DIODE 1SS226
D301	8-719-907-19	s	DIODE, VARICAP FC52M-5
D302	8-719-400-18	s	DIODE MA152WK

(AU-183 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D303	8-719-104-34	s	DIODE 1S2836
D304	8-719-400-18	s	DIODE MA152WK
D305	8-719-104-34	s	DIODE 1S2836
FL101	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL102	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL201	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL202	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
ICA9	8-759-501-44	s	IC PST529DMT
ICB4	8-759-011-64	s	IC MC74HC4052F
ICB5	8-759-925-80	s	IC SN74HC14ANS
ICB6	8-759-925-80	s	IC SN74HC14ANS
ICB8	8-759-151-97	s	IC UPD70320GJ-8-5BG
ICC2	8-759-926-11	s	IC SN74HC138ANS
ICC3	8-759-926-11	s	IC SN74HC138ANS
ICC4	8-759-011-64	s	IC MC74HC4052F
ICC5	8-759-925-85	s	IC SN74HC32ANS
ICC6	8-759-925-76	s	IC SN74HC08ANS
ICD2	8-759-925-74	s	IC TC74HC04ANS
ICD3	8-759-926-62	s	IC SN74HC365ANS
ICD4	8-752-348-00	s	IC CXK1024M
ICD5	8-759-925-85	s	IC SN74HC32ANS
ICD6	8-759-992-23	s	IC 74F138SJ
ICD7	8-759-926-11	s	IC SN74HC138ANS
ICD8	8-759-113-55	s	IC UPD71054GB-3B4
ICE3	8-759-234-67	s	IC TMP82C79M-2
ICE5	8-759-938-68	s	IC CXD1095Q
ICE6	8-759-927-46	s	IC SN74HC00ANS
ICE7	8-759-239-55	s	IC TC74HC123AF
ICE8	8-759-143-23	s	IC UPD71059GB-3B4
ICE10	8-759-151-04	s	IC UPD43256AGU-10LL
ICF7	8-759-239-55	s	IC TC74HC123AF
ICF10	8-759-062-88	s	IC CXD8277Q
ICG4	8-759-926-11	s	IC SN74HC138ANS
ICG5	8-759-925-90	s	IC SN74HC74ANS
ICG6	8-759-926-74	s	IC SN74HC393ANS
ICH8	8-759-510-45	s	IC SM5813AF
ICJ3	8-759-985-36	s	IC 74AC157SJ
ICJ5	8-759-708-12	s	IC NJM78L12A
ICJ8	8-759-158-89	s	IC PCM69AP-K
ICJ10	8-759-013-33	s	IC MC78L05M
ICK3	1-406-847-11	s	DELAY LINE
ICK4	8-759-013-33	s	IC MC78L05M
ICK6	8-759-745-64	s	IC NJM4560M
ICK7	8-759-631-57	s	IC M5220FP
ICK10	8-759-745-64	s	IC NJM4560M
ICK11	8-759-631-57	s	IC M5220FP
ICL4	8-759-985-35	s	IC 74AC153SJ
ICL7	8-759-900-72	s	IC NE5532P
ICL10	8-759-900-72	s	IC NE5532P
ICM3	8-759-233-66	s	IC TC74HCT04AF
ICM7	8-759-900-72	s	IC NE5532P
ICM8	8-759-996-43	s	IC RC4558PS
ICM11	8-759-900-72	s	IC NE5532P

(AU-183 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
ICN3	8-759-061-67	s	IC MC34051M
ICN4	8-759-187-61	s	IC MB87014APF
ICN5	8-759-970-59	s	IC TLC272CPS
ICN6	8-759-604-64	s	IC M5203FP
ICN7	8-759-604-64	s	IC M5203FP
ICN9	8-759-604-64	s	IC M5203FP
ICN10	8-759-604-64	s	IC M5203FP
ICP3	8-759-987-82	s	IC 74AC00SJ
ICP7	8-759-900-72	s	IC NE5532P
ICP10	8-759-900-72	s	IC NE5532P
ICR3	8-759-188-44	s	IC 74AC74SJX
ICR4	8-759-927-29	s	IC SN74HCU04ANS
ICR5	8-759-988-13	s	IC LM393PS
ICR7	8-759-602-18	s	IC M5219L
ICR10	8-759-602-18	s	IC M5219L
ICS3	8-759-926-23	s	IC SN74HC163ANS
ICS4	8-759-926-23	s	IC SN74HC163ANS
ICS5	8-759-926-29	s	IC SN74HC175ANS
ICT2	8-759-061-67	s	IC MC34051M
ICT3	8-759-985-31	s	IC 74AC109SJ
ICT4	8-759-188-44	s	IC 74AC74SJX
ICT5	8-759-926-29	s	IC SN74HC175ANS
L1	1-412-533-21	s	INDUCTOR 47
L3	1-412-533-21	s	INDUCTOR 47
L4	1-408-785-21	s	INDUCTOR CHIP 47
L301	1-408-785-21	s	INDUCTOR CHIP 47
L302	1-408-785-21	s	INDUCTOR CHIP 47
L303	1-408-768-21	s	INDUCTOR CHIP 1.8
L304	1-408-785-21	s	INDUCTOR CHIP 47
PH1	8-759-506-78	s	IC PC317Z
PH2	8-759-506-78	s	IC PC317Z
PH7	8-759-506-78	s	IC PC317Z
PS1	⚠ 1-532-727-11	s	LINK, IC 0.25A
Q5	8-729-920-31	s	TRANSISTOR DTC343TK
Q6	8-729-920-31	s	TRANSISTOR DTC343TK
Q7	8-729-920-31	s	TRANSISTOR DTC343TK
Q8	8-729-920-31	s	TRANSISTOR DTC343TK
Q9	8-729-920-31	s	TRANSISTOR DTC343TK
Q10	8-729-920-31	s	TRANSISTOR DTC343TK
Q11	8-729-920-31	s	TRANSISTOR DTC343TK
Q12	8-729-920-31	s	TRANSISTOR DTC343TK
Q13	8-729-920-31	s	TRANSISTOR DTC343TK
Q14	8-729-920-31	s	TRANSISTOR DTC343TK
Q15	8-729-920-31	s	TRANSISTOR DTC343TK
Q16	8-729-904-48	s	TRANSISTOR DTB113EK
Q17	8-729-904-48	s	TRANSISTOR DTB113EK
Q18	8-729-904-48	s	TRANSISTOR DTB113EK
Q19	8-729-904-48	s	TRANSISTOR DTB113EK
Q20	8-729-904-48	s	TRANSISTOR DTB113EK
Q21	8-729-904-48	s	TRANSISTOR DTB113EK
Q22	8-729-904-48	s	TRANSISTOR DTB113EK
Q23	8-729-904-48	s	TRANSISTOR DTB113EK
Q24	8-729-904-48	s	TRANSISTOR DTB113EK
Q25	8-729-904-48	s	TRANSISTOR DTB113EK
Q33	8-729-920-31	s	TRANSISTOR DTC343TK
Q34	8-729-920-31	s	TRANSISTOR DTC343TK

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

(AU-183 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q38	8-729-920-31	s	TRANSISTOR DTC343TK
Q101	8-729-901-01	s	TRANSISTOR DTC144EK
Q102	8-729-901-01	s	TRANSISTOR DTC144EK
Q104	8-729-901-05	s	TRANSISTOR DTA124EK
Q105	8-729-807-16	s	TRANSISTOR 2SD1621-R
Q106	8-729-901-01	s	TRANSISTOR DTC144EK
Q107	8-729-901-06	s	TRANSISTOR DTA144EK
Q111	8-729-205-96	s	TRANSISTOR 2SC3668-O
Q112	8-729-205-95	s	TRANSISTOR 2SA1428-Y
Q113	8-729-205-96	s	TRANSISTOR 2SC3668-O
Q114	8-729-205-95	s	TRANSISTOR 2SA1428-Y
Q115	8-729-920-31	s	TRANSISTOR DTC343TK
Q116	8-729-920-31	s	TRANSISTOR DTC343TK
Q211	8-729-205-96	s	TRANSISTOR 2SC3668-O
Q212	8-729-205-95	s	TRANSISTOR 2SA1428-Y
Q213	8-729-205-96	s	TRANSISTOR 2SC3668-O
Q214	8-729-205-95	s	TRANSISTOR 2SA1428-Y
Q215	8-729-920-31	s	TRANSISTOR DTC343TK
Q216	8-729-920-31	s	TRANSISTOR DTC343TK
R1	1-216-628-11	s	METAL, CHIP 110 0.5% 1/10W
R84	1-249-409-11	s	CARBON 220 5% 1/4W
R101	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R102	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R103	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R106	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R111	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R112	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R113	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R114	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R115	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R116	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R117	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R118	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R119	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R120	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R121	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R123	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R124	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R125	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R126	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R127	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R128	1-218-776-11	s	METAL, CHIP 1M 0.5% 1/10W
R129	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R130	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R133	1-249-388-11	s	CARBON 3.9 5% 1/4W
R134	1-249-388-11	s	CARBON 3.9 5% 1/4W
R135	1-260-079-11	s	CARBON 22 5% 1/2W
R136	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R137	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R138	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R139	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R147	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R148	1-218-776-11	s	METAL, CHIP 1M 0.5% 1/10W
R149	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R150	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R153	1-249-388-11	s	CARBON 3.9 5% 1/4W
R154	1-249-388-11	s	CARBON 3.9 5% 1/4W
R155	1-260-079-11	s	CARBON 22 5% 1/2W
R156	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

(AU-183 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R157	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R158	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R159	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R160	1-215-421-00	s	METAL 1K 1% 1/4W
R161	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R162	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R163	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R164	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R165	1-218-764-11	s	METAL, CHIP 330K 0.5% 1/10W
R166	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R167	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R168	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R169	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R185	1-216-672-91	s	METAL, CHIP 7.5K 0.50% 1/10W
R186	1-216-675-91	s	METAL, CHIP 10K 0.50% 1/10W
R187	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R201	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R202	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R203	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R206	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R211	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R212	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R213	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R214	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R215	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R216	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R217	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R218	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R219	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R220	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R221	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R223	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R224	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R225	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R226	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R227	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R228	1-218-776-11	s	METAL, CHIP 1M 0.5% 1/10W
R229	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R230	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R233	1-249-388-11	s	CARBON 3.9 5% 1/4W
R234	1-249-388-11	s	CARBON 3.9 5% 1/4W
R235	1-260-079-11	s	CARBON 22 5% 1/2W
R236	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R237	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R238	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R239	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R247	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R248	1-218-776-11	s	METAL, CHIP 1M 0.5% 1/10W
R249	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R250	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R253	1-249-388-11	s	CARBON 3.9 5% 1/4W
R254	1-249-388-11	s	CARBON 3.9 5% 1/4W
R255	1-260-079-11	s	CARBON 22 5% 1/2W
R256	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R257	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R258	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R259	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R260	1-215-421-00	s	METAL 1K 1% 1/4W
R261	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W

(AU-183 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R262	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R263	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R264	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R265	1-218-764-11	s	METAL, CHIP 330K 0.5% 1/10W
R266	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R267	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R268	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R269	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R285	1-216-672-91	s	METAL, CHIP 7.5K 0.5% 1/10W
R286	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R287	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R314	1-247-807-11	s	CARBON 100 5% 1/4W
R315	1-247-807-11	s	CARBON 100 5% 1/4W
R316	1-247-807-11	s	CARBON 100 5% 1/4W
R317	1-247-807-11	s	CARBON 100 5% 1/4W
R329	1-247-807-11	s	CARBON 100 5% 1/4W
RV101	1-241-763-11	s	RES, ADJ, CERMET 4.7K
RV102	1-241-763-11	s	RES, ADJ, CERMET 4.7K
RV103	1-241-760-21	s	RES, ADJ, CERMET 470
RV104	1-241-760-21	s	RES, ADJ, CERMET 470
RV201	1-241-763-11	s	RES, ADJ, CERMET 4.7K
RV202	1-241-763-11	s	RES, ADJ, CERMET 4.7K
RV203	1-241-760-21	s	RES, ADJ, CERMET 470
RV204	1-241-760-21	s	RES, ADJ, CERMET 470
RY101	1-515-708-21	s	RELAY
RY201	1-515-708-21	s	RELAY
S2	1-570-623-11	s	SWITCH, DIP 8-CKT
S5	1-554-303-21	s	SWITCH, PUSH
S101	1-571-967-11	s	SWITCH, DIP 8-CKT
T301	1-437-194-21	s	TRANSFORMER, PULSE
X1	1-577-076-11	s	CRYSTAL, 16.000MHz
X301	1-760-058-11	s	OSCILLATOR, CRYSTAL

CN-812 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-701-A	o	MOUNTED CIRCUIT BOARD, CN-812
C1	1-126-941-11	s	ELECT 470 20% 25V
CN141	1-562-991-11	o	SOCKET, CONNECTOR 22P
CN142	1-564-005-11	s	CONNECTOR, 6P, MALE
CN143	1-506-468-11	s	CONNECTOR, 3P, MALE
CN144	1-506-468-11	s	CONNECTOR, 3P, MALE
CN145	1-568-005-11	s	CONNECTOR, XLR 3P, MALE
CN146	1-568-005-11	s	CONNECTOR, XLR 3P, MALE
CN147	1-568-005-11	s	CONNECTOR, XLR 3P, MALE
CN148	1-573-702-11	s	SOCKET, CONNECTOR
CN149	1-764-253-11	s	CONNECTOR, ROUND TYPE 10P, FEMALE
FB1	1-412-694-11	s	INDUCTOR, BEED
FB2	1-412-694-11	s	INDUCTOR, BEED
FB3	1-412-694-11	s	INDUCTOR, BEED
FB4	1-412-694-11	s	INDUCTOR, BEED
FB5	1-412-694-11	s	INDUCTOR, BEED
FB6	1-412-694-11	s	INDUCTOR, BEED
FB7	1-412-694-11	s	INDUCTOR, BEED
FB8	1-412-694-11	s	INDUCTOR, BEED
FB9	1-412-694-11	s	INDUCTOR, BEED
FB10	1-412-694-11	s	INDUCTOR, BEED
FB11	1-412-694-11	s	INDUCTOR, BEED
FB12	1-412-694-11	s	INDUCTOR, BEED
FB13	1-412-694-11	s	INDUCTOR, BEED
FB14	1-412-694-11	s	INDUCTOR, BEED
FB15	1-412-694-11	s	INDUCTOR, BEED
FB16	1-412-694-11	s	INDUCTOR, BEED
FB17	1-412-694-11	s	INDUCTOR, BEED
FB18	1-412-694-11	s	INDUCTOR, BEED
FB19	1-412-694-11	s	INDUCTOR, BEED
FB20	1-412-694-11	s	INDUCTOR, BEED
FB21	1-412-694-11	s	INDUCTOR, BEED
FB22	1-412-694-11	s	INDUCTOR, BEED
FL1	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL2	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
J1	Pending		JACK, PIN 2P
L1	1-412-533-21	s	INDUCTOR 47
R11	1-214-850-21	s	METAL 270 1% 1/2W
R12	1-214-850-21	s	METAL 270 1% 1/2W
R13	1-214-830-21	s	METAL 39 1% 1/2W
R21	1-214-850-21	s	METAL 270 1% 1/2W
R22	1-214-850-21	s	METAL 270 1% 1/2W
R23	1-214-830-21	s	METAL 39 1% 1/2W
S111	1-554-796-11	s	SWITCH, SLIDE

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

DSP-52 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-698-A	o	MOUNTED CIRCUIT BOARD, DSP 52
CN151	1-506-493-11	s	CONNECTOR, 14P, MALE
CN152	1-506-494-11	s	CONNECTOR, 15P, MALE
D1	8-719-992-24	s	DIODE SLR-305VC3F, RED
D2	8-719-992-24	s	DIODE SLR-305VC3F, RED
D3	8-719-992-24	s	DIODE SLR-305VC3F, RED
D4	8-719-992-24	s	DIODE SLR-305VC3F, RED
D5	8-719-908-43	s	DIODE LD-701UR, RED
D6	8-719-979-87	s	LED LD-701MG, GRN
D7	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D8	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D9	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D10	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D11	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D12	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D13	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D14	8-719-911-19	s	DIODE 1SS119
D15	8-719-992-30	s	DIODE SLR-305MC3F, GRN
D17	8-719-911-19	s	DIODE 1SS119
D18	8-719-911-19	s	DIODE 1SS119
D19	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D20	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D21	8-719-911-19	s	DIODE 1SS119
D22	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D23	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D24	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D25	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D26	8-719-911-19	s	DIODE 1SS119
D27	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D28	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D29	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D30	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D31	8-719-911-19	s	DIODE 1SS119
ND1	8-719-918-70	s	DIODE LB-202DB, ORG
ND2	8-719-918-70	s	DIODE LB-202DB, ORG
ND3	8-719-918-70	s	DIODE LB-202DB, ORG
ND4	8-719-918-70	s	DIODE LB-202DB, ORG
R20	1-247-807-31	s	CARBON 100 5% 1/4W
R21	1-247-807-31	s	CARBON 100 5% 1/4W
R22	1-247-807-31	s	CARBON 100 5% 1/4W
R23	1-247-807-31	s	CARBON 100 5% 1/4W
R24	1-247-807-31	s	CARBON 100 5% 1/4W
R25	1-247-807-31	s	CARBON 100 5% 1/4W
R26	1-247-807-31	s	CARBON 100 5% 1/4W
R27	1-247-807-31	s	CARBON 100 5% 1/4W
R28	1-247-807-31	s	CARBON 100 5% 1/4W
R29	1-247-807-31	s	CARBON 100 5% 1/4W
R30	1-247-807-31	s	CARBON 100 5% 1/4W
R31	1-247-807-31	s	CARBON 100 5% 1/4W
R32	1-247-807-31	s	CARBON 100 5% 1/4W
R33	1-247-807-31	s	CARBON 100 5% 1/4W
R34	1-247-807-31	s	CARBON 100 5% 1/4W
R35	1-247-807-31	s	CARBON 100 5% 1/4W
R36	1-247-807-31	s	CARBON 100 5% 1/4W
R37	1-247-807-31	s	CARBON 100 5% 1/4W
R38	1-247-807-31	s	CARBON 100 5% 1/4W
R39	1-247-807-31	s	CARBON 100 5% 1/4W
R40	1-247-807-31	s	CARBON 100 5% 1/4W
R41	1-247-807-31	s	CARBON 100 5% 1/4W
R42	1-247-807-31	s	CARBON 100 5% 1/4W
R43	1-247-807-31	s	CARBON 100 5% 1/4W
R44	1-247-807-31	s	CARBON 100 5% 1/4W
R45	1-247-807-31	s	CARBON 100 5% 1/4W
R46	1-249-410-11	s	CARBON 270 5% 1/4W
R47	1-249-410-11	s	CARBON 270 5% 1/4W
R48	1-249-410-11	s	CARBON 270 5% 1/4W
R49	1-249-410-11	s	CARBON 270 5% 1/4W
R50	1-249-410-11	s	CARBON 270 5% 1/4W
R51	1-249-410-11	s	CARBON 270 5% 1/4W
R52	1-249-410-11	s	CARBON 270 5% 1/4W
R53	1-249-410-11	s	CARBON 270 5% 1/4W
R54	1-249-410-11	s	CARBON 270 5% 1/4W
R55	1-249-410-11	s	CARBON 270 5% 1/4W
S1	1-552-539-00	s	SWITCH, PUSH
S3	1-552-539-00	s	SWITCH, PUSH
S4	1-552-539-00	s	SWITCH, PUSH
S5	1-552-539-00	s	SWITCH, PUSH
S6	1-552-539-00	s	SWITCH, PUSH
S7	1-552-539-00	s	SWITCH, PUSH

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

JK-43 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-649-025-11	o	PRINTED CIRCUIT BOARD, JK-43
1pc	3-181-703-01	o	LUG, PLATE
C1	1-162-179-11	s	CERAMIC 0.1 50V
C2	1-162-179-11	s	CERAMIC 0.1 50V
C3	1-126-947-91	s	ELECT 47 20% 35V
C4	1-126-947-91	s	ELECT 47 20% 35V
CN121	1-506-471-11	s	CONNECTOR 6P, MALE
FL1	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL2	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
IC1	8-759-900-72	s	IC NE5532P
J1	1-507-863-51	s	JACK, PHONE
R1	1-215-433-00	s	METAL 3.3K 1% 1/6W
R2	1-215-454-00	s	METAL 24K 1% 1/6W
R3	1-247-807-31	s	CARBON 100 5% 1/4W
R4	1-215-433-00	s	METAL 3.3K 1% 1/6W
R5	1-215-454-00	s	METAL 24K 1% 1/6W
R6	1-247-807-31	s	CARBON 100 5% 1/4W
RV1	1-241-331-11	s	RES, VAR, CARBON 10K/10K

MB-508 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-702-A	o	MOUNTED CIRCUIT BOARD, MB-508
2pcs	7-621-770-67	s	SCREW +B 2.6X6
2pcs	7-622-207-05	s	N 2.6, TYPE 2
CN131	1-564-001-11	o	CONNECTOR, 2P, MALE
CN132	1-506-467-11	s	CONNECTOR, 2P, MALE
CN133	1-564-411-11	o	CONNECTOR, 50P, MALE
CN134	1-566-582-11	o	CONNECTOR, DIN 64P, FEMALE

SV-145 BOARD

Ref. No.
or Q'ty Part No. SP Description

注意；

- SV-145基板のマウント部品は、下記の部品を除いて、サービス部品として個々では供給しません。
- 基板上(下記部品を除く)の部品で不良が発生した場合は、メカデッキASSYを交換して下さい。

Notes;

- Excluding the parts in the parts list under, the parts of SV-145 mounted board are not supplied as service parts.
- If any trouble occurred due to the parts on mounted board (excluding the parts in the parts list), replace the whole mechanical deck assembly.

Ref. No. or Q'ty	Part No.	SP	Description
C1	1-126-392-11	s	ELECT, CHIP 100 20% 6.3V
C11	1-126-390-11	s	ELECT, CHIP 22 20% 6.3V
C12	1-126-391-11	s	ELECT, CHIP 47 20% 6.3V
C13	1-126-391-11	s	ELECT, CHIP 47 20% 6.3V
C18	1-126-390-11	s	ELECT, CHIP 22 20% 6.3V
C21	1-126-398-11	s	ELECT, CHIP 4.7 20% 35V
C26	1-126-390-11	s	ELECT, CHIP 22 20% 6.3V
C52	1-126-392-11	s	ELECT, CHIP 100 20% 6.3V
C67	1-126-401-11	s	ELECT, CHIP 1 20% 50V
C68	1-126-401-11	s	ELECT, CHIP 1 20% 50V
CN1	1-564-004-11	o	CONNECTOR, 5P, MALE
CN2	1-568-799-11	s	CONNECTOR, 16P
CN3	1-563-018-11	o	CONNECTOR, F.P.C 34P
CN4	1-580-002-11	o	CONNECTOR, PC BOARD 5P
CN5	1-580-001-11	o	CONNECTOR, PC BOARD 4P
ICA5B	8-759-040-83	s	IC BA6287F
ICB3A	8-759-188-87	s	IC DMA030S
ICC2A	8-752-352-36	s	IC CXD2525Q
ICC3A	8-752-058-77	s	IC CXA1372AQ
ICE1B	8-759-925-72	s	IC SN74HC02ANS
ICF1B	8-759-926-23	s	IC SN74HC163ANS
ICG1B	8-759-926-23	s	IC SN74HC163ANS
L1	1-408-417-00	s	INDUCTOR 47
Q1	8-729-901-06	s	TRANSISTOR DTA144EK
Q2	8-729-901-01	s	TRANSISTOR DTC144EK
Q3	8-729-901-01	s	TRANSISTOR DTC144EK
Q4	8-729-901-06	s	TRANSISTOR DTA144EK
R20	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R21	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R22	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R23	1-216-693-11	s	METAL, CHIP 56K 0.5% 1/10W
R24	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R25	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
MAIN OVERALL ASSY			
1	⚠ 1-423-796-11	s	TRANSFORMER, POWER (For J,UC)
1	⚠ 1-423-797-11	s	TRANSFORMER, POWER (For AE,UK)
1	1-558-262-22	o	WIRE, FLEXIBLE CARD, 30P
1	1-559-322-11	o	WIRE, FLEXIBLE CARD 22P
1	1-562-285-11	o	HOUSING, CONNECTOR 4P
1	⚠ 1-952-325-12	o	HARNESS, AC
1	1-952-326-11	o	HARNESS, MB-3
1	1-952-327-11	o	HARNESS, CN-1
1	1-952-328-11	o	HARNESS, CN-2
1	1-952-329-11	o	HARNESS, CN-3
1	1-952-330-11	o	HARNESS, MB-1
1	1-952-331-11	o	HARNESS, MB-2
1	1-952-332-11	o	HARNESS, JK
HARNESS (AU-PS)			
	1-562-490-11	o	CONTACT, MICRO (SMALL TYPE)
HARNESS (SV-PS)			
	1-569-193-11	o	CONTACT, FEMALE
	1-569-198-11	o	HOUSING, CONNECTOR 5P
FRONT PANEL ASSY			
1	1-952-334-11	o	HARNESS, DSP-1
1	1-952-335-11	o	HARNESS, DSP-2

ACCESSORIES SUPPLIED

Ref. No. or Q'ty	Part No.	SP	Description
1	⚠ 1-534-754-00	s	POWER CORD (For J)
1	⚠ 1-551-812-11	s	CORD, POWER (For UC)
1	⚠ 1-590-910-11	s	CORD SET, POWER (For AE,UK)
1	3-182-547-01	o	STOPPER, TRAY

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

6-3-2. CDS-3100

HA-17 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
C30	1-136-161-00	s	FILM 0.047 5% 50V
C31	1-124-242-00	s	ELECT 33 20% 25V
C32	1-124-584-00	s	ELECT 100 20% 10V
C36	1-124-589-11	s	ELECT 47 20% 16V
C38	1-136-177-00	s	FILM 1 5% 50V
C39	1-104-550-11	s	FILM 0.0082 5% 16V
C40	1-124-589-11	s	ELECT 47 20% 16V
C42	1-124-589-11	s	ELECT 47 20% 16V
C48	1-124-589-11	s	ELECT 47 20% 16V
C49	1-124-589-11	s	ELECT 47 20% 16V
C50	1-124-589-11	s	ELECT 47 20% 16V
C54	1-124-248-00	s	ELECT 22 20% 35V
C59	1-124-589-11	s	ELECT 47 20% 16V
C64	1-124-248-00	s	ELECT 22 20% 35V
C71	1-124-589-11	s	ELECT 47 20% 16V
C72	1-124-589-11	s	ELECT 47 20% 16V
C73	1-124-589-11	s	ELECT 47 20% 16V
C74	1-124-589-11	s	ELECT 47 20% 16V
C75	1-124-589-11	s	ELECT 47 20% 16V
C76	1-124-584-00	s	ELECT 100 20% 10V
C77	1-124-589-11	s	ELECT 47 20% 16V
C78	1-124-589-11	s	ELECT 47 20% 16V
CN106	1-506-488-11	o	CONNECTOR 9P, MALE
D21	8-719-400-18	s	DIODE MA152WK
D22	8-719-104-34	s	DIODE 1S2836
FL1	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL2	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
ICA3	8-752-340-07	s	IC CXD2604Q
ICA5	8-759-148-30	s	IC UPD6376GS
ICB1	8-759-931-43	s	IC SN74LS624NS
ICB2	8-752-306-51	s	IC CX23065A
ICB4	8-759-511-07	s	IC SM5840ES
ICB5	8-759-925-80	s	IC SN74HC14ANS
ICB7	8-759-519-07	s	IC BA3558K
ICC3	8-759-701-75	s	IC NJM7805FA
L11	1-408-785-21	s	INDUCTOR, CHIP 47uH
L13	1-408-777-00	s	INDUCTOR, CHIP 10uH
R71	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R72	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R73	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R74	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R81	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R82	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R83	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R84	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R85	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R86	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R87	1-216-680-11	s	METAL, CHIP 16K 0.5% 1/10W
R91	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R92	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R93	1-216-675-91	s	METAL, CHIP 10K 0.5% 1/10W
R94	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R95	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R96	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R97	1-216-680-11	s	METAL, CHIP 16K 0.5% 1/10W

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

JK-40 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-706-A	o	MOUNTED CIRCUIT BOARD, JK-40
1pc	3-181-703-01	o	LUG, PLATE
CN111	1-506-474-11	s	CONNECTOR, 9P, MALE
FL1	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
FL2	1-236-058-21	s	ENCAPSULATED COMPONENT, LC
J1	1-507-863-51	s	JACK, PHONE
RV1	1-241-331-11	s	RES, VAR, CARBON 10K/10K
VDR1	1-806-916-11	s	VARISTOR, CERAMIC

KC-30 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-169-A	o	MOUNTED CIRCUIT BOARD, KC-30
1pc	1-526-659-00	o	SOCKET, IC 28P
4pcs	3-660-828-00	o	HOLDER (9), PC BOARD
C1	1-126-163-11	s	ELECT 4.7 20% 50V
C14	1-124-589-11	s	ELECT 47 20% 16V
C15	1-124-589-11	s	ELECT 47 20% 16V
C16	1-124-589-11	s	ELECT 47 20% 16V
C21	1-124-242-00	s	ELECT 33 20% 25V
C23	1-128-057-11	s	ELECT 330 20% 6.3V
C24	1-128-057-11	s	ELECT 330 20% 6.3V
CN101	1-764-253-11	s	CONNECTOR, ROUND TYPE 10P, FEMALE
CN102	1-562-887-11	s	CONNECTOR, F.P.C 20P
CN103	1-506-474-11	s	CONNECTOR 9P, MALE
CN104	1-506-469-11	s	CONNECTOR 4P, MALE
CN105	1-506-472-11	s	CONNECTOR 7P, MALE
D1	8-719-400-18	s	DIODE MA152WK
D2	8-719-104-34	s	DIODE 1S2836
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-104-34	s	DIODE 1S2836
D5	8-719-400-18	s	DIODE MA152WK
D6	8-719-104-34	s	DIODE 1S2836
D7	8-719-400-18	s	DIODE MA152WK
D8	8-719-400-18	s	DIODE MA152WK
D9	8-719-400-18	s	DIODE MA152WK
D10	8-719-974-51	s	DIODE SB20-03P
FB1	1-543-256-11	s	BEAD, FERRITE
FB2	1-543-256-11	s	BEAD, FERRITE
FB3	1-543-256-11	s	BEAD, FERRITE
FB4	1-543-256-11	s	BEAD, FERRITE
FB5	1-543-256-11	s	BEAD, FERRITE
FB6	1-543-256-11	s	BEAD, FERRITE
FB7	1-543-256-11	s	BEAD, FERRITE
FB8	1-543-256-11	s	BEAD, FERRITE
FB9	1-543-256-11	s	BEAD, FERRITE
ICA3	8-759-054-08	s	IC MC34063AM
ICA7	8-759-501-44	s	IC PST529DMT
ICB2	8-759-149-10	s	IC UPD4702G
ICB6	8-759-514-36	s	IC AM27C256-200DC
ICB7	8-759-926-11	s	IC SN74HC138ANS
ICC3	8-759-938-68	s	IC CXD1095Q
ICC5	8-759-246-66	s	IC TMPZ84C015BF-6
ICC7	8-752-330-98	s	IC CXK5864BM-10L
ICD1	8-759-061-67	s	IC MC34051M
ICD6	8-759-925-80	s	IC SN74HC14ANS
ICD7	8-759-925-85	s	IC SN74HC32ANS
L1	1-412-533-21	s	INDUCTOR 47uH
L2	1-412-533-21	s	INDUCTOR 47uH
L3	1-414-002-11	s	COIL, CHOKE 33uH
Q1	8-729-923-80	s	TRANSISTOR DTC143EK
Q2	8-729-923-80	s	TRANSISTOR DTC143EK
Q3	8-729-923-80	s	TRANSISTOR DTC143EK
Q4	8-729-923-80	s	TRANSISTOR DTC143EK
Q5	8-729-923-80	s	TRANSISTOR DTC143EK
Q9	8-729-904-66	s	TRANSISTOR DTD113EK
Q10	8-729-904-66	s	TRANSISTOR DTD113EK
Q11	8-729-904-66	s	TRANSISTOR DTD113EK
Q12	8-729-904-66	s	TRANSISTOR DTD113EK
Q13	8-729-904-66	s	TRANSISTOR DTD113EK
Q14	8-729-904-66	s	TRANSISTOR DTD113EK
Q15	8-729-904-66	s	TRANSISTOR DTD113EK
Q16	8-729-904-66	s	TRANSISTOR DTD113EK
Q17	8-729-904-48	s	TRANSISTOR DTB113EK
Q18	8-729-904-48	s	TRANSISTOR DTB113EK
Q19	8-729-904-48	s	TRANSISTOR DTB113EK
Q20	8-729-904-48	s	TRANSISTOR DTB113EK
Q21	8-729-904-48	s	TRANSISTOR DTB113EK
Q22	8-729-904-48	s	TRANSISTOR DTB113EK
Q23	8-729-904-48	s	TRANSISTOR DTB113EK
Q24	8-729-904-48	s	TRANSISTOR DTB113EK
Q25	8-729-904-48	s	TRANSISTOR DTB113EK
Q26	8-729-904-48	s	TRANSISTOR DTB113EK
Q27	8-729-904-48	s	TRANSISTOR DTB113EK
Q28	8-729-904-48	s	TRANSISTOR DTB113EK
Q29	8-729-904-48	s	TRANSISTOR DTB113EK
Q30	8-729-904-48	s	TRANSISTOR DTB113EK
Q31	8-729-922-48	s	TRANSISTOR 2SB1184F5-PQR
R55	1-260-092-11	s	CARBON 270 5% 1/2W
R56	1-216-341-11	s	METAL 0.22 5% 1W
R57	1-216-341-11	s	METAL 0.22 5% 1W
R58	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R59	1-216-688-11	s	METAL, CHIP 36K 0.5% 1/10W
S2	1-572-609-31	s	SWITCH, PUSH (ILLUMINATION)
S3	1-572-609-51	s	SWITCH, PUSH (ILLUMINATION)
S4	1-692-748-11	s	SWITCH, PUSH (ILLUMINATION)
S5	1-692-749-11	s	SWITCH, PUSH (ILLUMINATION)
S6	1-554-303-21	s	SWITCH, PUSH
S7	1-553-977-11	s	SWITCH, SLIDE
X2	1-567-869-11	s	RESONATOR, CERAMIC 9.83MHz

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

KY-252 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-704-A	o	MOUNTED CIRCUIT BOARD, KY-252
5pcs	2-140-311-01	s	KEY TOP
1pc	3-181-167-01	s	KEY TOP (8.5)
1pc	3-181-167-02	s	KEY TOP (8.5)
1pc	3-181-167-03	s	KEY TOP (8.5)
1pc	3-181-167-04	s	KEY TOP (8.5)
1pc	3-181-167-05	s	KEY TOP (8.5)
1pc	3-181-167-06	s	KEY TOP (8.5)
1pc	3-181-167-07	s	KEY TOP (8.5)
1pc	3-181-167-08	s	KEY TOP (8.5)
1pc	3-181-167-09	s	KEY TOP (8.5)
1pc	3-181-167-10	s	KEY TOP (8.5)
1pc	3-181-167-11	s	KEY TOP (8.5)
1pc	3-181-167-15	s	KEY TOP (8.5)
1pc	3-181-167-16	s	KEY TOP (8.5)
6pcs	4-928-315-01	s	KEY TOP
CN201	1-506-488-11	s	CONNECTOR, 9P, MALE
CN202	1-506-486-11	s	CONNECTOR, 7P, MALE
D6	8-719-911-19	s	DIODE 1SS119
D7	8-719-911-19	s	DIODE 1SS119
D8	8-719-911-19	s	DIODE 1SS119
D9	8-719-911-19	s	DIODE 1SS119
D10	8-719-911-19	s	DIODE 1SS119
D11	8-719-911-19	s	DIODE 1SS119
D12	8-719-911-19	s	DIODE 1SS119
D13	8-719-911-19	s	DIODE 1SS119
D14	8-719-911-19	s	DIODE 1SS119
D15	8-719-911-19	s	DIODE 1SS119
D16	8-719-911-19	s	DIODE 1SS119
D17	8-719-911-19	s	DIODE 1SS119
D18	8-719-911-19	s	DIODE 1SS119
D19	8-719-911-19	s	DIODE 1SS119
D20	8-719-911-19	s	DIODE 1SS119
D21	8-719-911-19	s	DIODE 1SS119
D22	8-719-911-19	s	DIODE 1SS119
D23	8-719-911-19	s	DIODE 1SS119
D24	8-719-911-19	s	DIODE 1SS119
D25	8-719-911-19	s	DIODE 1SS119
D26	8-719-911-19	s	DIODE 1SS119
D27	8-719-911-19	s	DIODE 1SS119
D28	8-719-911-19	s	DIODE 1SS119
D29	8-719-911-19	s	DIODE 1SS119
D30	8-719-975-94	s	DIODE SLR-40MG3F, GRN
R1	1-247-807-31	s	CARBON 100 5% 1/4W
R2	1-247-807-31	s	CARBON 100 5% 1/4W
R3	1-247-807-31	s	CARBON 100 5% 1/4W
R4	1-247-807-31	s	CARBON 100 5% 1/4W
R5	1-247-807-31	s	CARBON 100 5% 1/4W
R6	1-247-807-31	s	CARBON 100 5% 1/4W
R7	1-247-807-31	s	CARBON 100 5% 1/4W
S6	1-571-653-21	s	SWITCH, PUSH
S7	1-571-653-21	s	SWITCH, PUSH
S8	1-571-653-21	s	SWITCH, PUSH
S9	1-571-653-21	s	SWITCH, PUSH
S10	1-571-653-21	s	SWITCH, PUSH
S11	1-571-653-21	s	SWITCH, PUSH
S12	1-571-653-21	s	SWITCH, PUSH
S13	1-571-653-21	s	SWITCH, PUSH
S14	1-571-653-21	s	SWITCH, PUSH
S15	1-571-653-21	s	SWITCH, PUSH
S16	1-571-653-21	s	SWITCH, PUSH
S17	1-571-653-21	s	SWITCH, PUSH
S18	1-571-653-21	s	SWITCH, PUSH
S19	1-571-653-21	s	SWITCH, PUSH
S20	1-571-653-21	s	SWITCH, PUSH
S21	1-571-653-21	s	SWITCH, PUSH
S22	1-571-653-21	s	SWITCH, PUSH
S23	1-571-655-21	s	SWITCH, PUSH
S24	1-571-655-21	s	SWITCH, PUSH
S25	1-571-655-21	s	SWITCH, PUSH
S26	1-571-655-21	s	SWITCH, PUSH
S27	1-571-653-21	s	SWITCH, PUSH
S28	1-571-655-21	s	SWITCH, PUSH
S29	1-571-655-21	s	SWITCH, PUSH

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

LED-148 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8276-705-A	o	MOUNTED CIRCUIT BOARD, LED-148
1pc	3-181-713-01	o	BRACKET, GROUND
CN121	1-562-887-11	s	CONNECTOR, F.P.C 20P
D1	8-719-979-87	s	LED LD-701MG, GRN
D2	8-719-908-43	s	DIODE LD-701UR, RED
D3	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D4	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D5	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D6	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D7	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D8	8-719-992-28	s	DIODE SLR-305YC3F, YEL
D9	8-719-820-65	s	DIODE TLS221
D10	8-719-820-65	s	DIODE TLS221
D11	8-719-820-65	s	DIODE TLS221
ND1	8-719-918-70	s	DIODE LB-202DB, ORG
ND2	8-719-918-70	s	DIODE LB-202DB, ORG
ND3	8-719-918-70	s	DIODE LB-202DB, ORG
ND4	8-719-918-70	s	DIODE LB-202DB, ORG
ND5	8-719-918-70	s	DIODE LB-202DB, ORG
R1	1-247-807-31	s	CARBON 100 5% 1/4W
R2	1-247-807-31	s	CARBON 100 5% 1/4W
R3	1-247-807-31	s	CARBON 100 5% 1/4W
R4	1-247-807-31	s	CARBON 100 5% 1/4W
R5	1-247-807-31	s	CARBON 100 5% 1/4W
R6	1-247-807-31	s	CARBON 100 5% 1/4W
R7	1-247-807-31	s	CARBON 100 5% 1/4W
R8	1-247-807-31	s	CARBON 100 5% 1/4W

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
OVERALL ASSY			
1	1-467-350-11	s	ENCODER, ROTARY (OPT.TYPE)
1	1-696-626-11	s	WIRE, FLEXIBLE CARD 20P
1	1-952-333-12	o	HARNESS, HA
1	1-952-337-11	o	HARNESS, KY-1
1	1-952-338-11	o	HARNESS, KY-2
HARNESS (ENC)			
	1-535-245-11	o	TERMINAL
	1-561-208-11	o	SOCKET, CONNECTOR
	1-569-193-11	o	CONTACT, FEMALE
	1-569-197-11	o	HOUSING, CONNECTOR 4P

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

ACCESSORIES SUPPLIED

Ref. No. or Q'ty	Part No.	SP	Description
1	1-751-727-11	s	CORD, CONNECTION
1	3-181-716-01	o	JOINT
2	7-682-547-09	s	SCREW +B 3X6

NOTE : Please see pages 6-6 for the parts that are not listed in the parts list.

6-3-3. DABK-3101

MEM-54 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
C1	1-126-391-11	s	ELECT, CHIP 47 20% 6.3V
C38	1-164-095-11	s	CERAMIC 0.01 10% 16V
CN210	1-569-465-11	o	CONNECTOR, DIN 48P, MALE
D1	8-719-104-34	s	DIODE 1S2836
ICA1	8-759-033-01	s	IC MC74F02M
ICA2	8-759-033-16	s	IC MC74F74M
ICA3	8-759-925-90	s	IC SN74HC74ANS
ICA4	8-759-233-46	s	IC TC74HC597AF
ICA5	8-759-926-24	s	IC SN74HC164ANS
ICB1	8-759-925-74	s	IC TC74HC04ANS
ICB3	8-759-239-23	s	IC TC74HC86AF
ICB4	8-759-233-46	s	IC TC74HC597AF
ICB5	8-759-926-24	s	IC SN74HC164ANS
ICC2	8-759-926-82	s	IC SN74HC574ANS
ICC4	8-759-926-24	s	IC SN74HC164ANS
ICC5	8-759-926-24	s	IC SN74HC164ANS
ICD5	8-752-332-80	s	IC CXD1160AQ
ICE3	8-759-152-60	s	IC CXD8163AQ
ICG1A	8-759-996-99	s	IC TMS44C256-10SDL
ICG1B	8-759-996-99	s	IC TMS44C256-10SDL
ICG2A	8-759-996-99	s	IC TMS44C256-10SDL
ICG2B	8-759-996-99	s	IC TMS44C256-10SDL
ICG3A	8-759-996-99	s	IC TMS44C256-10SDL
ICG3B	8-759-996-99	s	IC TMS44C256-10SDL
ICG4A	8-759-996-99	s	IC TMS44C256-10SDL
ICG4B	8-759-996-99	s	IC TMS44C256-10SDL

SP1086

SONY

COMPACT DISC PLAYER UNIT
CDP-3100

COMPACT DISC PLAYER CONTROL UNIT
CDS-3100

MEMORY BOARD
DABK-3101

INTERFACE BOARD
DABK-3102

SUPPLEMENT-1 (FOR MAINTENANCE Part 2)

内容
DABK-3102のサービス情報
下記ページをMAINTENANCE MANUAL Part 2の該当ページと差し換えて下さい。

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対象マニュアル
CDP-3100/CDS-3100/DABK-3101
MAINTENANCE MANUAL Part2 1st Edition

SUBJECT
This supplement contains the information of DABK-3102.
Please replace the following pages with the corresponding page of MAINTENANCE MANUAL Part 2.

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Page 3-9(Addition)
SEC.4 SCHEMATIC DIAGRAMS
Pages 4-11 to 4-15(Addition)
SEC.6 SPARE PARTS
Pages 6-19 to 6-21 (Addition)

APPLICABLE MANUAL
CDP-3100/CDS-3100/DABK-3101
MAINTENANCE MANUAL Part2 1st Edition

COMPACT
disc
DIGITAL AUDIO

MAINTENANCE MANUAL Part 2

CDP-3100 (J,UC,AE,UK,和,英)
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2-3. AU-183基板調整

AU-183基板を交換した際に必要な下記調整／確認についてはメンテナンスマニュアルパート1を参照して行う。

- 出力レベル調整(RV101, RV102, RV201, RV202の調整)
- 出力波形のバランス調整(RV103, RV203の調整)
- オーディオ特性の確認

注意： RV104、RV204について

AU-183基板にマウントされているRV104、RV204は機能していません。従って、調整の必要はありません。

対応シリアルNo.

CDP-3100 (J)　: S/N 10001～10145
CDP-3100 (UC) : S/N 20001～20100
CDP-3100 (AE) : S/N 50001～50110
CDP-3100 (UK) : S/N 60001～60005
CDP-3100 (EK) : S/N 51001～51120

2-4. IF-411基板調整(DABK−3102調整)

IF-411基板(DABK-3102)調整は、調整用治具として、MB-508基板およびハーネス(MB-3)を使用して行う。(下記、"1.DABK-3102の接続"参照)

使用機器、治工具(部品)

オシロスコープ
周波数カウンター(ADVANTEST TR5822または相当品)
テストディスク(YEDS-18)
調整ドライバ
MB-508基板：1
ハーネス(MB-3)：1

準備

1. DABK-3102の接続

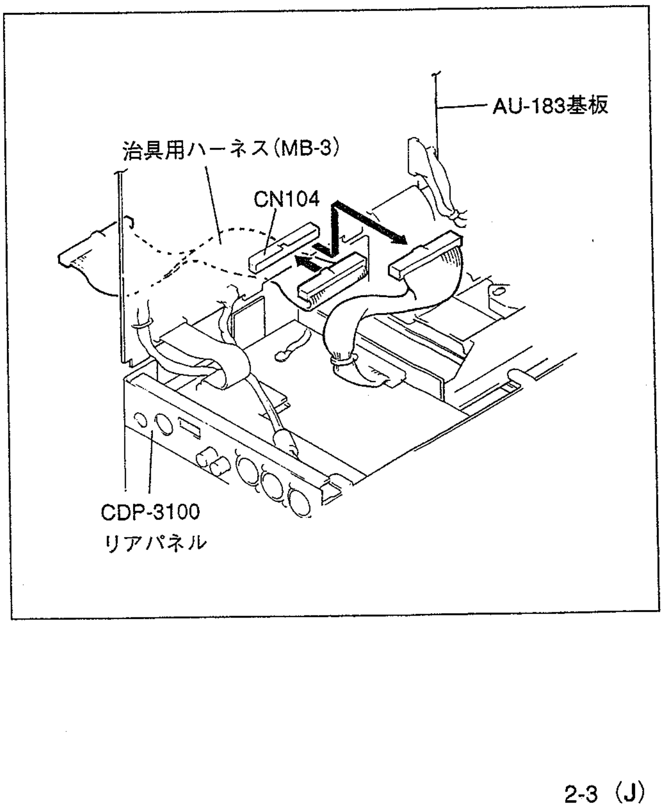
用意する部品

MB-508基板：1 (ソニー部品番号 A-8276-702-A)
ハーネス(MB-3)：1 (ソニー部品番号 1-952-326-11)

手順

注意：接続は、CDP-3100の電源をOFFにして行う。

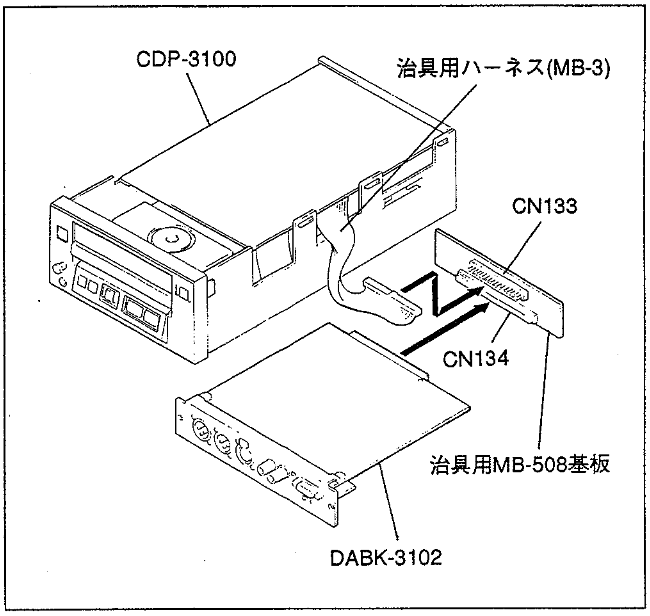
(1) "1-1.電源ヒューズの交換方法"を参照して、CDP-3100の上面カバーを外し、AU-183基板を開く。
(2) AU-183基板上のCN104コネクタより接続されているハーネスを外す。
(3) 治具用ハーネス(MB-3)をCN104コネクタに下図のように差し込む。
(4) AU-183基板を閉じる。



(5) 治具用ハーネス（MB-3）を治具用MB-508基板のCN133コネクタに接続する。（下図参照）

注意：接続の際に、ハーネスのコネクタの∇マークと治具用MB-508基板上の∇マークが合っていることを確認する。

(6) DABK-3102を治具用MB-508基板のCN134コネクタに接続する。（下図参照）


CDP-3100
治具用ハーネス(MB-3)
CN133
CN134
治具用MB-508基板
DABK-3102

2-4-1. VIDEO PLL フリーラン周波数調整

この調整は、IF-411基板の下記部品を交換したときに行う。

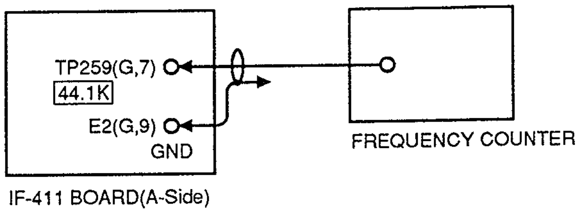
- VIDEO PLLのVCXO周辺部の部品（ICK9, X251, D256, C276, C277）
- フリーラン調整部の部品（RV251, R280等）

使用機器

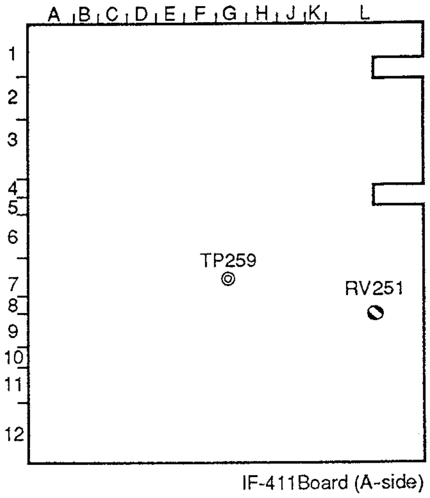
周波数カウンター

接続

注意：DABK-3102のREF VIDEO IN（CN173）コネクターを無接続（無信号）にする。


TP259(G,7)
44.1K
E2(G,9)
GND
IF-411 BOARD(A-Side)
FREQUENCY COUNTER

調整箇所


A
B
C
D
E
F
G
H
J
K
L
1
2
3
4
5
6
7
8
9
10
11
12
TP259
RV251
IF-411Board (A-side)

スイッチ設定

DABK-3102（IF-411基板）

コネクターパネル

WORD SYNC/REF VIDEO SELECTスイッチ（S201）：REF VIDEO

TIME CODE OUT SELECT スイッチ（S151）：任意

基板内スイッチ

S251 スライドスイッチ：任意

S101（1 to 4）ディップスイッチ

S101-1：任意

S101-2 to -4：OFF

手順

(1) TP259/IF-411基板に周波数カウンターを接続する。
(2) CDP-3100のSYSTEM CLK のREF VIDEOインジケーター（フロントパネル）が消灯していることを確認する。
(3) 調整
規格：TP259/IF-411基板の周波数= 44100.00±0.10 Hz
（44099.90～44100.10 Hz）
調整箇所：⊘RV251/IF-411基板

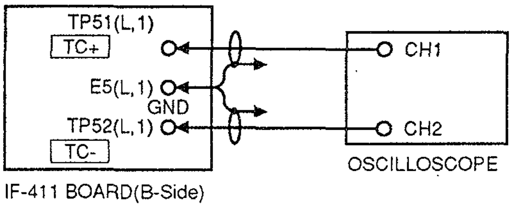
2-4-2. タイムコード出力レベル調整

この調整は、IF-411基板のタイムコード出力部の部品（ICE9, ICJ1, RV51, R67～R82）を交換したとき、またはタイムコード出力レベルを変更するときに行う。

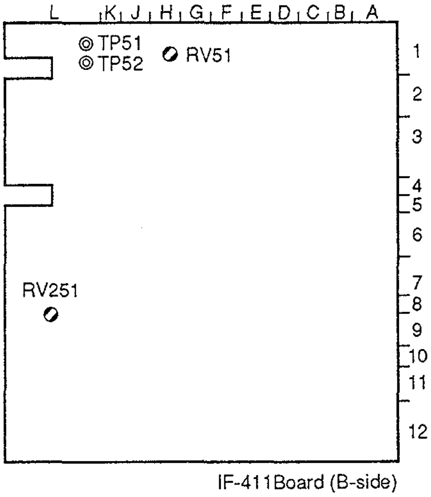
使用機器

オシロスコープ
テストディスク（YEDS-18）

接続


TP51(L,1)
TC+
E5(L,1)
GND
TP52(L,1)
TC-
CH1
CH2
OSCILLOSCOPE
IF-411 BOARD(B-Side)

調整箇所

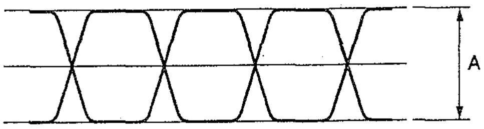

L
K J H G F E D C B A
TP51
TP52
RV51
RV251
1
2
3
4
5
6
7
8
9
10
11
12
IF-411Board (B-side)

スイッチ設定

DABK-3102（IF-411基板）
2-4-1. 項に同じ

手順

(1) オシロスコープをIF-411基板の下記箇所に接続する。
オシロスコープCH-1 → TP51（TC+）/IF-411基板
オシロスコープCH-2 → TP52（TC−）/IF-411基板
このとき、オシロスコープの設定をADDモードにし、CH-2はINVERTモードにする。
(2) テストディスク（YEDS-18）をCDP-3100に挿入して、PLAYキーを押す。（再生モード）
(3) 調整



規格：タイムコード出力レベル A = 2.4±0.1 Vp-p
調整箇所：⊘RV51/IF-411基板

注意：タイムコード出力レベルを変更する場合
上記規格Aの電圧が、希望する電圧（出力レベル）になるように⊘RV51/IF-411基板を調整する。

2-3. AU-183 BOARD ADJUSTMENT

For details of the adjustments and check below to be performed when the AU-183 board has been replaced, refer to Maintenance Manual Part 1.

- Output level adjustment (RV101, RV102, RV201, RV202 adjustments)
- Output waveform balance adjustment (RV103, RV203 adjustments)
- Audio characteristic check

Note : About RV104, RV204

As RV104 and RV204 mounted on the AU-183 board do not function, they need not be adjusted.

Corresponding serial No.:

CDP-3100 (J) : S/N 10001~10145
CDP-3100 (UC): S/N 20001~20100
CDP-3100 (AE): S/N 50001~50110
CDP-3100 (UK): S/N 60001~60005
CDP-3100 (EK): S/N 51001~51120

2-4. IF-411 BOARD ADJUSTMENTS (DABK-3102 ADJUSTMENTS)

Use the MB-508 board and harness (MB-3) to adjust the IF-411 board (DABK-3102). (Refer to "1. DABK-3102 Connections" below.)

Equipment and Tools (Parts)

Oscilloscope
Frequency counter (ADVANTEST TR5822 or equivalent)
Test disc (YEDS-18)
Adjusting screwdriver
MB-508 board: 1
Harness (MB-3): 1

Preparations

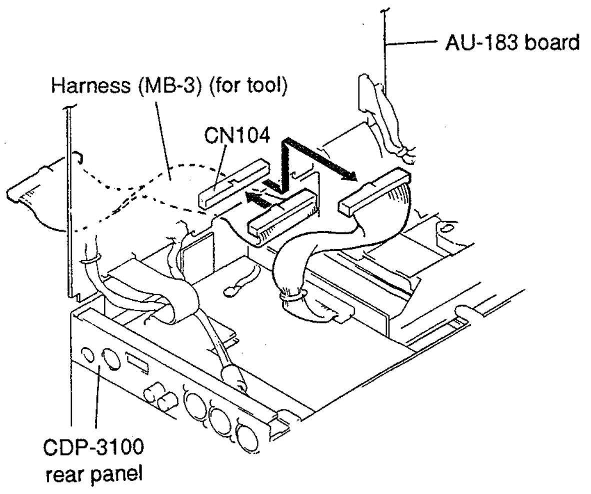
1. DABK-3102 Connections

Components required:
MB-508 board: 1 (Sony Part No.: A-8276-702-A)
Harness (MB-3): 1 (Sony Part No.: 1-952-326-11)

Procedure:

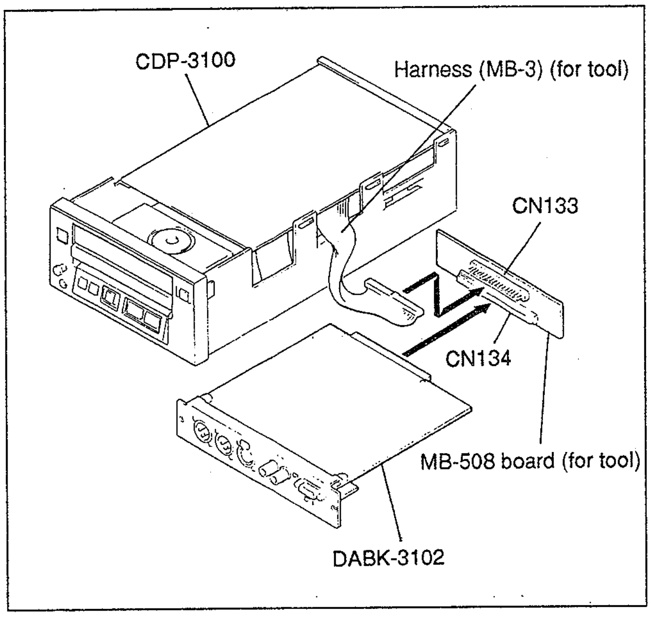
Note : Turn OFF the power of CDP-3100 when connecting.

(1) Refer to "1-1. REPLACING THE POWER FUSE", and remove the top cover of CDP-3100 and open the AU-183 board.
(2) Remove the harness connected to the CN104 connector of the AU-183 board.
(3) Insert the harness (MB-3) (for tool) into the CN104 connector as shown in the following figure.
(4) Close the AU-183 board.



(5) Connect the harness (MB-3) (for tool) to the CN133 connector of the MB-508 board (for tool). (See the figure below.)
Note : When connecting, check that the ∇ mark of the connector of the harness and the ∇ mark of the MB-508 board (for tool) are aligned to each other.

(6) Connect DABK-3102 to the CN134 connector of the MB-508 board (for tool). (See the figure below.)


CDP-3100
Harness (MB-3) (for tool)
CN133
CN134
MB-508 board (for tool)
DABK-3102

2-4-1. VIDEO PLL Free-run Frequency Adjustment

Perform this adjustment when replacing the following parts of the IF-411 board.

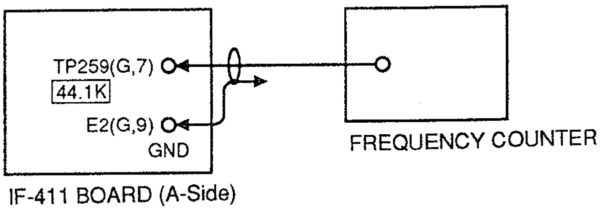
- Peripheral parts of VCXO of the VIDEO PLL (ICK9, X251, D256, C276, C277)
- Parts used to adjust free-run (RV251, R280, etc.)

Equipment

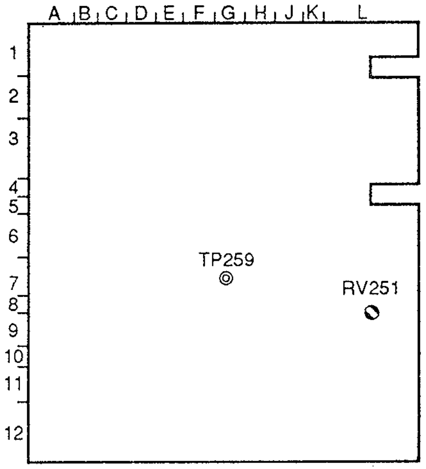
Frequency counter

Connection

Note : Do not connect the REF VIDEO IN (CN173) connector of DABK-3102 (no signals).


TP259(G,7)
44.1K
E2(G,9)
GND
FREQUENCY COUNTER
IF-411 BOARD (A-Side)

Adjustment Location


A B C D E F G H J K L
1
2
3
4
5
6
7
8
9
10
11
12
TP259
RV251

IF-411 BOARD (A-Side)

Switch Settings

DABK-3102 (IF-411 Board)
Connector panel
WORD SYNC/REF VIDEO SELECT switch (S201)
: REF VIDEO
TIME CODE OUT SELECT switch (S151)
: Any position

Board switches
S251 slide switch: Any position
S101 (1 to 4) dip switch:
S101-1: Any position
S102 to S102-4: OFF

Procedure

(1) Connect the frequency counter to TP259/IF-411 board.
(2) Check that the REF VIDEO indicator (front panel) of the CDP-3100 SYSTEM CLK goes off.
(3) Adjustment

Specification : TP259/IF-411 board frequency =
44100.00±0.10 Hz
(44099.90 to 44100.10 Hz)
Adjustment : ⊘RV251/IF-411 board

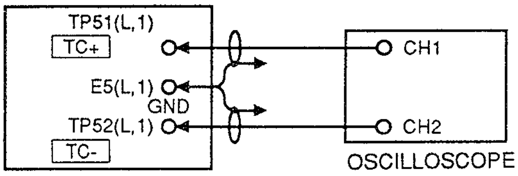
2-4-2. Time Code Output Level Adjustment

Perform this adjustment when replacing the parts (ICE9, ICJ1, RV51, R67 to R82) of the time code output of the IF-411 board and when changing the time code output level.

Equipment

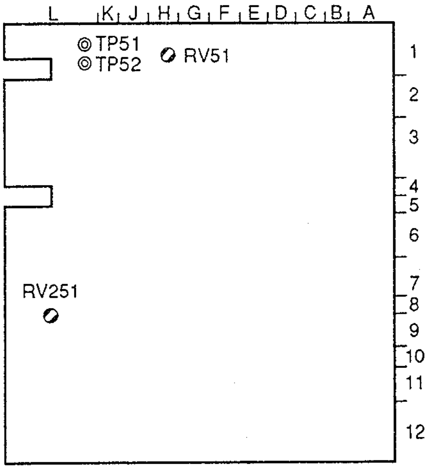
Oscilloscope
Test disc (YEDS-18)

Connection



IF-411 BOARD (B-Side)

Adjustment Location



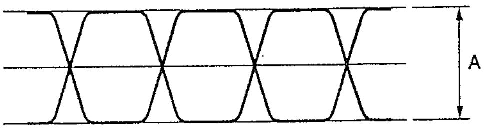
IF-411 BOARD (B-Side)

Switch Settings

DABK-3102 (IF-411 Board)
Same as section 2-4-1.

Procedure

(1) Connect the oscilloscope to the following points of the IF-411 board.
Oscilloscope CH-1 → TP51 (TC+)/IF-411 board
Oscilloscope CH-2 → TP52 (TC–)/IF-411 board
At this time, set the oscilloscope to the ADD mode and CH-2 to the INVERT mode.
(2) Insert the test disc (YEDS-18) into CDP-3100 and press the PLAY key. (Playback mode)
(3) Adjustment



Specification : Time code output level A = 2.4±0.1 Vp-p
Adjustment : ⊘RV51/IF-411 board

Note : When changing the time code output level, adjust ⊘RV51/IF-411 board so that the above specification A voltage satisfies the desired voltage (output level).

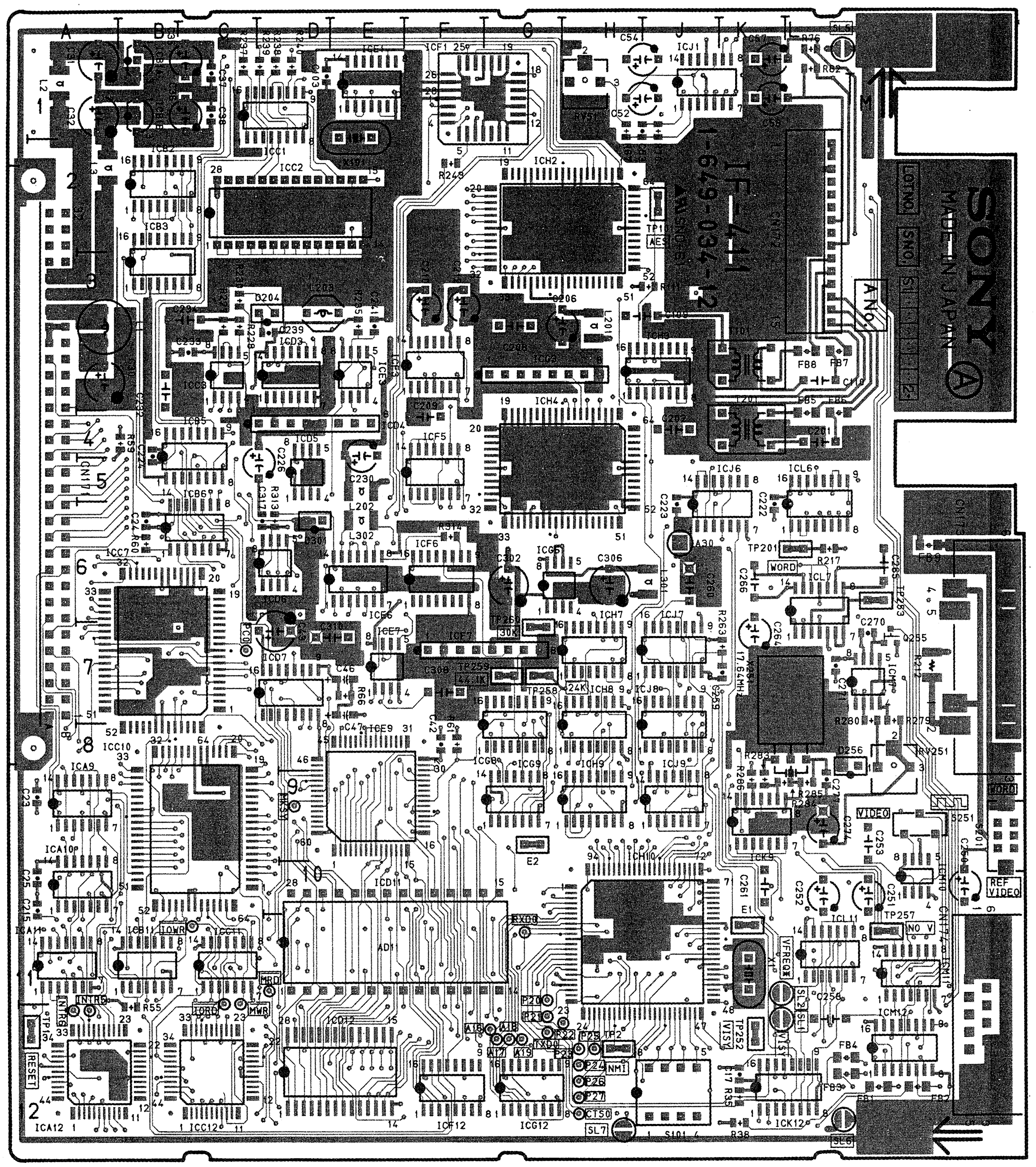
DABK-3102

IF-411 BOARD

A Side

IF-411(1-649-034-12)

CN171	A-5
CN172	K-2
CN173	M-6
CN174	M-11
D204	D-3
D255	L-7
D256	L-8
D301	D-6
E1	K-10
E2	G-9
FB1	M-12
FB2	M-12
FB3	L-12
FB4	L-12
FB5	L-3
FB6	L-3
FB7	L-3
FB8	L-3
FB9	M-6
ICA9	A-8
ICA10	A-9
ICA11	A-11
ICA12	A-12
ICB2	B-2
ICB3	B-2
ICB5	C-4
ICB6	C-5
ICB1A	B-1
ICB1B	B-1
ICB11	B-11
ICC1	D-2
ICC2	D-2
ICC3	C-3
ICC7	A-6
ICC10	A-8
ICC11	C-11
ICC12	C-12
ICD3	D-3
ICD4	E-4
ICD5	D-4
ICD6	D-6
ICD7	D-7
ICD11	E-10
ICD12	E-12
ICE1	E-1
ICE3	E-3
ICE6	E-6
ICE7	E-7
ICE9	E-8
ICF1	F-1
ICF3	E-3
ICF5	F-4
ICF6	F-6
ICF7	F-7
ICF12	F-12
ICG3	G-3
ICG6	G-6
ICG8	G-8
ICG9	G-8
ICG12	G-12
ICH2	G-2
ICH3	J-3
ICH4	G-3
ICH7	H-6
ICH8	H-7
ICH9	H-8
ICH10	H-9
ICJ1	J-1
ICJ6	K-5
ICJ7	J-6
ICJ8	J-7
ICJ9	J-8
ICK9	K-9
ICK12	K-12
ICL6	L-5
ICL7	L-6
ICL11	L-11
ICM7	M-7
ICM10	M-10
ICM11	M-11
ICM12	M-12
L1	B-3
L2	A-1
L3	A-2
L201	H-3
L202	E-6
L203	D-3
L301	J-6
L302	E-6
Q255	M-7
RV51	H-1
RV251	M-8
S101	J-12
S201	M-9
S251	M-9
TP1	A-12
TP2	H-12
TP101	J-2
TP201	K-6
TP252	K-12
TP253	M-6
TP257	M-11
TP258	G-7
TP259	F-7
TP260	G-7
T101	K-3
T201	K-3
X1	K-11
X101	E-2
X251	K-7



1-649-034-12 A SIDE

A Side is the same as Component Side.

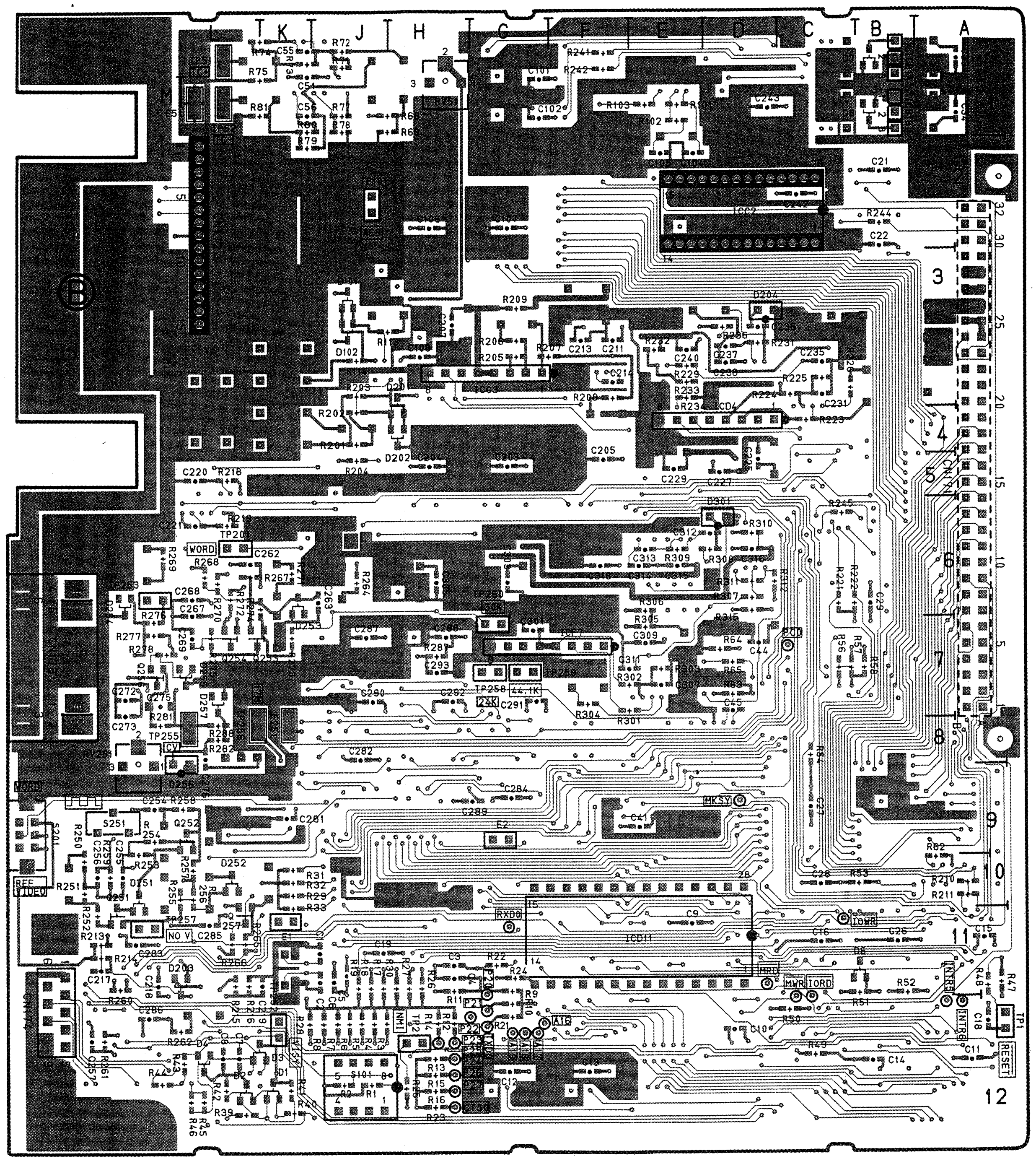
IF-411 BOARD

B Side

IF-411(1-649-034-12)

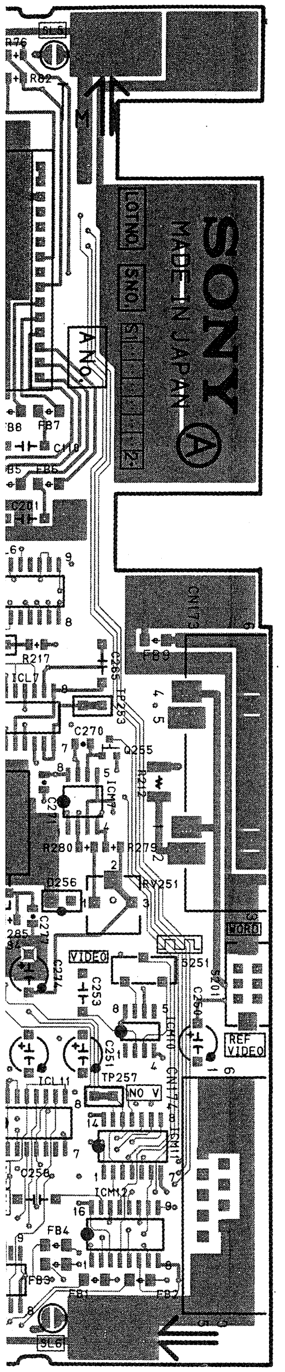
D1	*K-12
D2	*L-12
D3	*K-12
D4	*L-12
D6	*B-11
D7	*C-1
D8	*C-1
D101	*J-3
D102	*J-3
D201	*H-3
D202	*H-4
D203	*M-11
D251	*M-10
D252	*L-10
D253	*K-7
D254	*M-6
D257	*L-7
E51	*M-1
E251	*K-8
Q251	*M-10
Q252	*L-9
Q253	*L-7
Q254	*L-7
Q256	*M-7
Q257	*L-11
TP51	*L-1
TP52	*L-1
TP255	*M-8
TP256	*L-8

*:SOLDERING SIDE



1-649-034-12 B SIDE

B Side is the same as Solder Side.

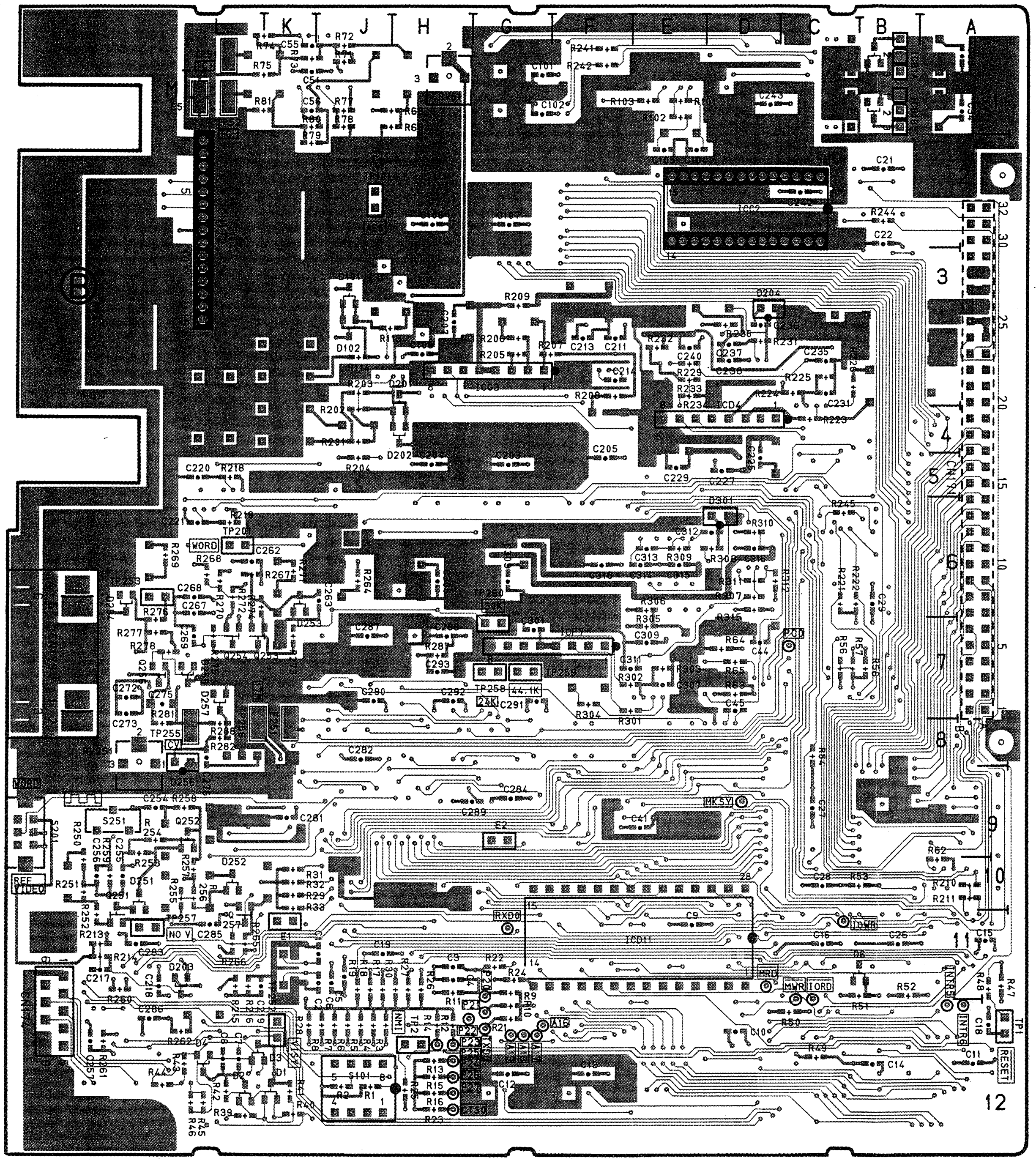

SONY
MADE IN JAPAN
Ⓐ
LOT NO.
S NO.
VIDEO
REF VIDEO
NO V

IF-411 BOARD
B Side

IF-411(1-649-034-12)

D1	*K-12
D2	*L-12
D3	*K-12
D4	*L-12
D6	*B-11
D7	*C-1
D8	*C-1
D101	*J-3
D102	*J-3
D201	*H-3
D202	*H-4
D203	*M-11
D251	*M-10
D252	*L-10
D253	*K-7
D254	*M-6
D257	*L-7
E51	*M-1
E251	*K-8
Q251	*M-10
Q252	*L-9
Q253	*L-7
Q254	*L-7
Q256	*M-7
Q257	*L-11
TP51	*L-1
TP52	*L-1
TP255	*M-8
TP256	*L-8

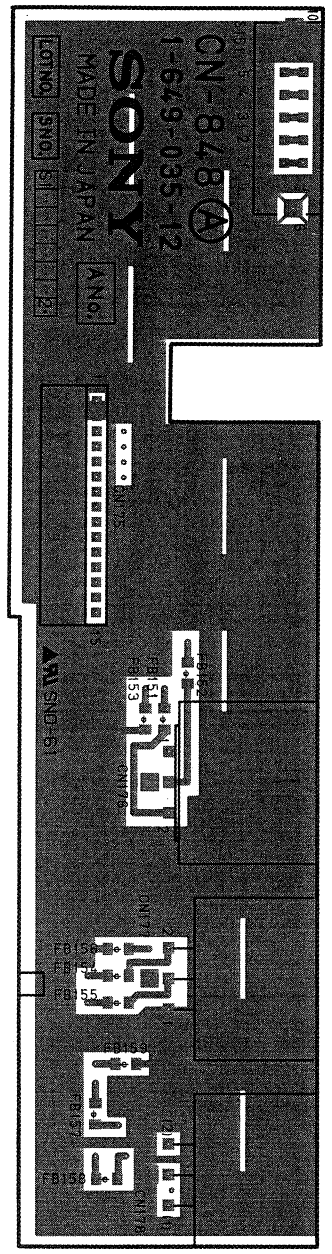
* :SOLDERING SIDE


A
B
C
D
E
F
G
H
J
K
L
M
1
2
3
4
5
6
7
8
9
10
11
12
Ⓑ
WORD
VIDEO
REF VIDEO
NO V
RESET
44.1K
48K
MK5V
TP1

1-649-034-12 B SIDE

B Side is the same as Solder Side.

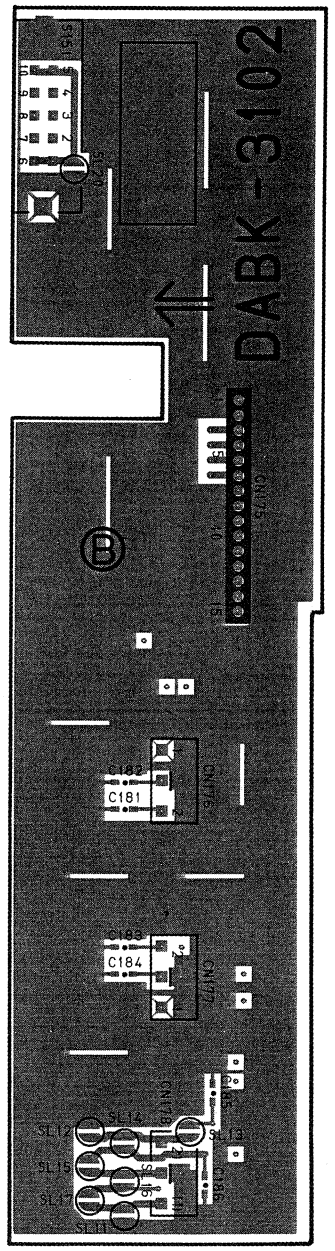
CN-848 BOARD
A Side


SONY
MADE IN JAPAN
CN-848 Ⓐ
1-649-035-12
LOT NO.
S NO.
A NO.

1-649-035-12 A SIDE

A Side is the same as Component Side.

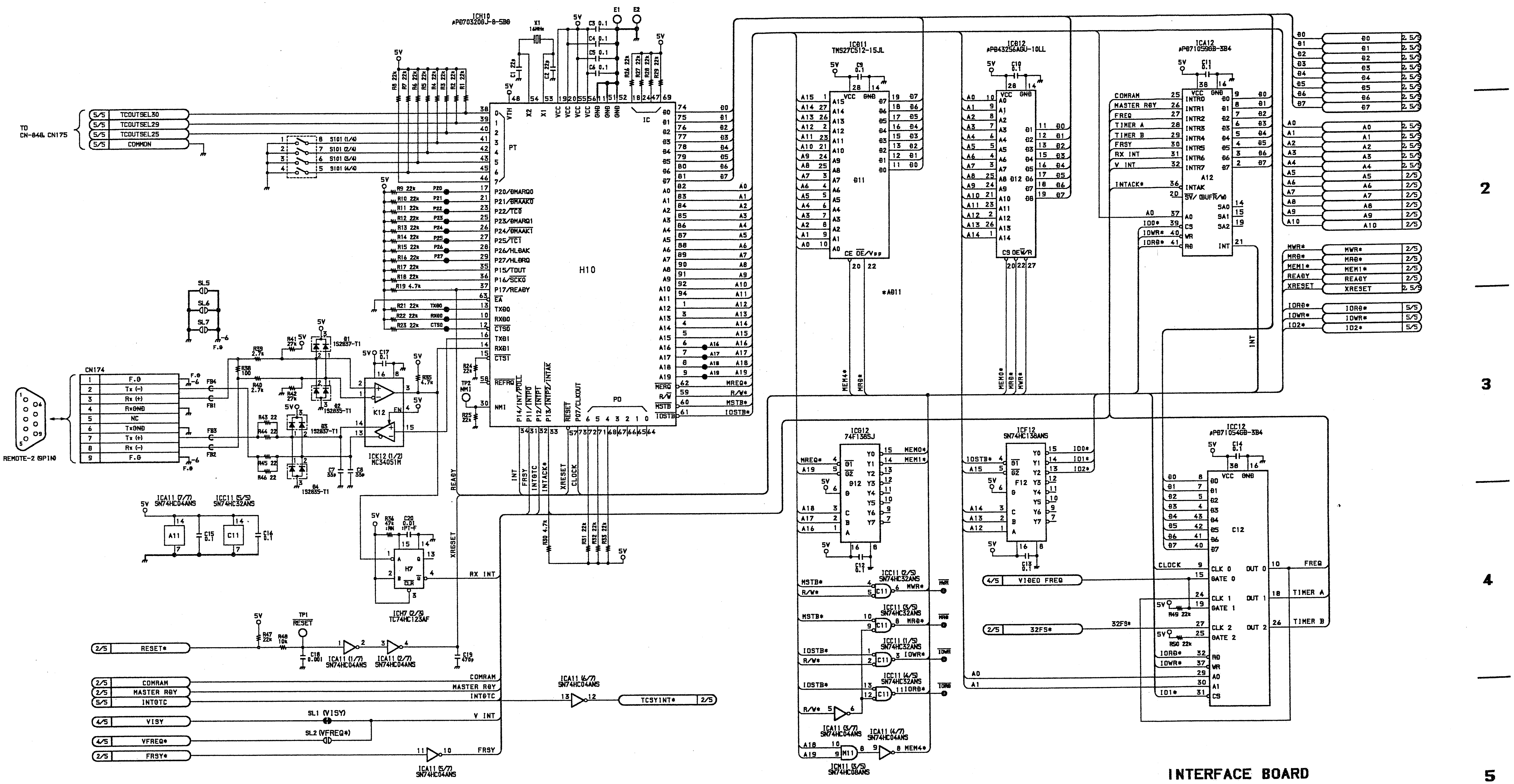
CN-848 BOARD
B Side


DABK-3102
Ⓑ
C181
C183
C184

1-649-035-12 B SIDE

B Side is the same as Solder Side.

IF-411 BOARD (1/5) DABK-3102

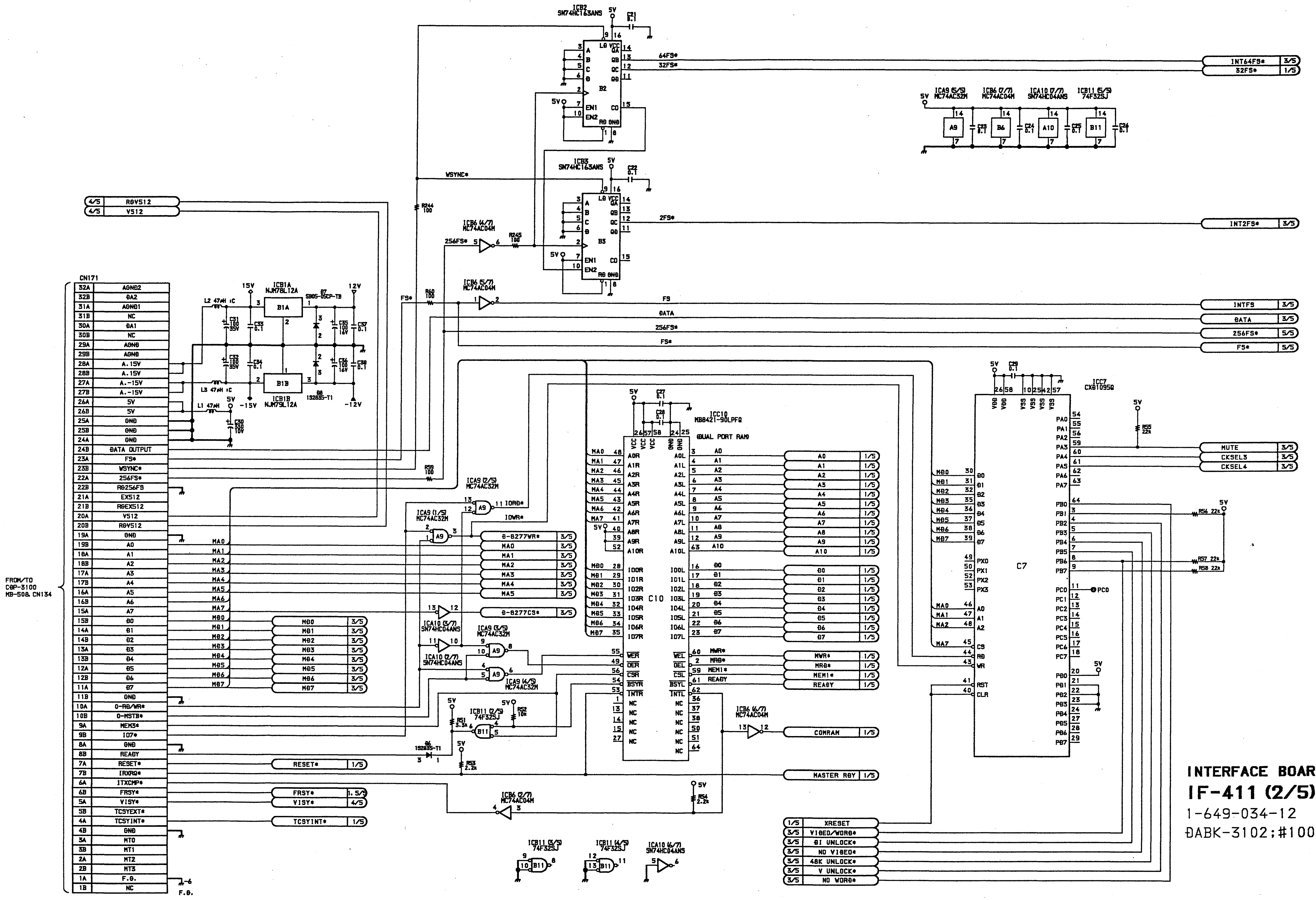

1
2
3
4
5
TO CN-848, CN175
TCOUTSEL30
TCOUTSEL29
TCOUTSEL25
COMMON
S101 (1/4)
S101 (2/4)
S101 (3/4)
S101 (4/4)
ICH10 #PD70320BJ-8-5B8
X1 16MHz
H10
E1
E2
IC
SL5
SL6
SL7
CN174
F.G
Tx (-)
Rx (+)
RxGND
NC
TxGND
Tx (+)
Rx (-)
REMOTE-2 (9PIN)
D1 1SS357-T1
D2 1SS355-T1
D3 1SS357-T1
D4 1SS355-T1
K12
ICK12 (1/2) MC34051M
ICA11 (7/7) SN74HC04ANS
ICC11 (5/5) SN74HC32ANS
A11
C11
H7
ICH7 (2/3) TC74HC123AF
RX INT
READY
XRESET
RESET*
TP1 RESET
TP2 NMI
ICA11 (1/7) SN74HC04ANS
ICA11 (2/7) SN74HC04ANS
COMRAM
MASTER RBY
INTGTC
V INT
VISY
VFREQ*
FRSY*
SL1 (VISY)
SL2 (VFREQ*)
ICA11 (6/7) SN74HC04ANS
TCSYINT*
ICA11 (5/7) SN74HC04ANS
FRSY
ICB11 TMS27C512-15JL
B11
*AB11
ICB12 #PD43256AGU-10LL
B12
ICA12 #PD71059GB-3B4
A12
ICG12 74F138SJ
G12
ICF12 SN74HC138ANS
F12
ICC12 #PD71054GB-3B4
C12
ICC11 (2/5) SN74HC32ANS
ICC11 (3/5) SN74HC32ANS
ICC11 (1/5) SN74HC32ANS
ICC11 (4/5) SN74HC32ANS
ICA11 (3/7) SN74HC04ANS
ICA11 (4/7) SN74HC04ANS
ICM11 (3/5) SN74HC08ANS
MWR*
MRD*
IOWR*
IORD*
MEM4*
MEM0*
MEM1*
IO0*
IO1*
IO2*
VIDEO FREQ
32FS*
FREQ
TIMER A
TIMER B
MREQ*
MSTB*
R/W*
IOSTB*
CLOCK
INT
D0–D7
A0–A19
READY
XRESET
IORD*
IOWR*
IO2*
A
B
C
D
E
F
G
H

INTERFACE BOARD

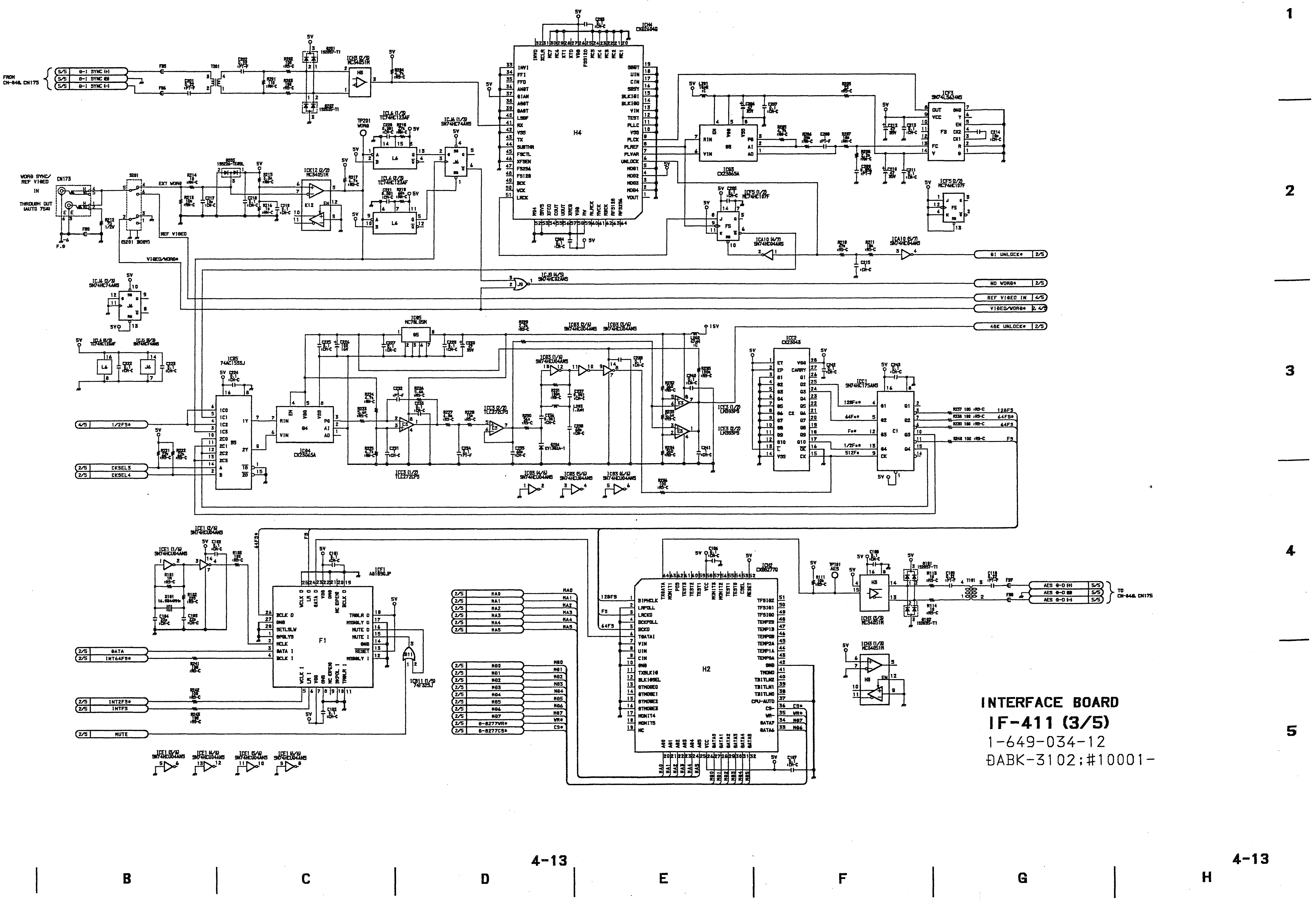
IF-411 (1/5)

1-649-034-12

DABK-3102;#10001-

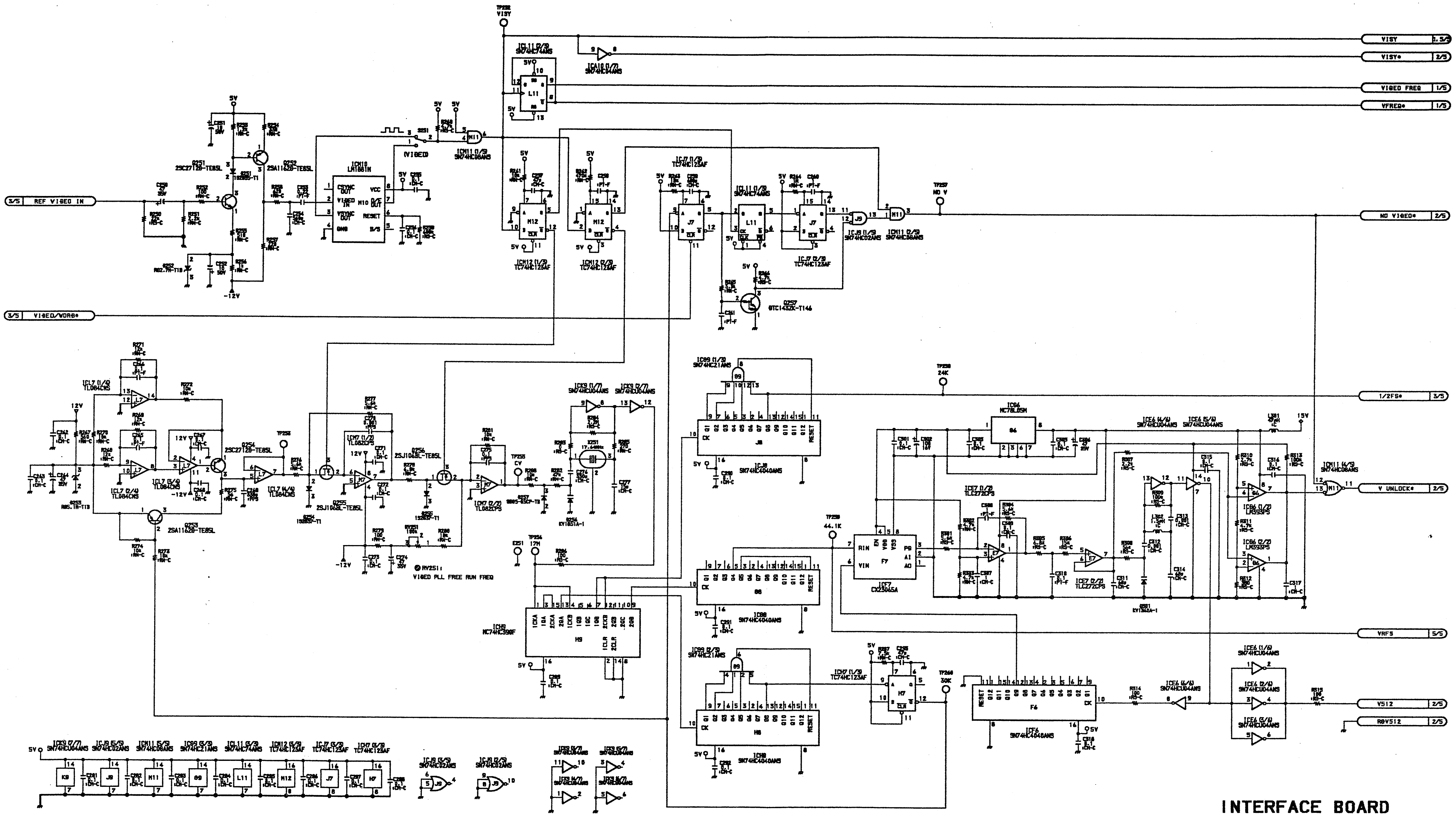

ICB2 SN74HC163ANS
B2
64FS*
32FS*
INT64FS* 3/5
32FS* 1/5
ICA9 (5/5) MC74AC32M
ICB6 (7/7) MC74AC04M
ICA10 (7/7) SN74HC04ANS
ICB11 (5/5) 74F32SJ
A9
B6
A10
B11
ICB3 SN74HC163ANS
B3
WSYNC*
2FS*
INT2FS* 3/5
R244 100
R245 100
ICB6 (4/7) MC74AC04M
256FS*
ICB6 (5/7) MC74AC04M
R60 100
FS*
FS
DATA
256FS*
INTFS 3/5
DATA 3/5
256FS* 5/5
FS* 5/5
RDV512 4/5
V512 4/5
CN171
FROM/TO CDP-3100 MB-508, CN134
32A AGND2
32B DA2
31A AGND1
31B NC
30A DA1
30B NC
29A AGND
29B AGND
28A A.15V
28B A.15V
27A A.-15V
27B A.-15V
26A 5V
26B 5V
25A GND
25B GND
24A GND
24B DATA OUTPUT
23A FS*
23B WSYNC*
22A 256FS*
22B RD256FS
21A EX512
21B RDEX512
20A V512
20B RDV512
19A GND
19B A0
18A A1
18B A2
17A A3
17B A4
16A A5
16B A6
15A A7
15B D0
14A D1
14B D2
13A D3
13B D4
12A D5
12B D6
11A D7
11B GND
10A D-RD/WR*
10B D-MSTB*
9A MEMS*
9B IO7*
8A GND
8B READY
7A RESET*
7B IRXRQ*
6A ITXCMP*
6B FRSY*
5A VISY*
5B TCSYEXT*
4A TCSYINT*
4B GND
3A MT0
3B MT1
2A MT2
2B MT3
1A F.G.
1B NC
F.G.
ICB1A NJM78L12A
ICB1B NJM79L12A
B1A
B1B
D7 S805-05CP-TB
D8 1S2835-T1
L2 47μH
L3 47μH
L1 47μH
15V
12V
-15V
-12V
5V
C31 100 35V
C33 0.1
C35 100 16V
C37 0.1
C32 100 35V
C34 0.1
C36 100 16V
C38 0.1
C30 330 10V
R59 100
ICA9 (2/5) MC74AC32M
ICA9 (1/5) MC74AC32M
IORD*
IOWR*
D-8277WR* 3/5
MA0 3/5
MA1 3/5
MA2 3/5
MA3 3/5
MA4 3/5
MA5 3/5
D-8277CS* 3/5
ICA10 (3/7) SN74HC04ANS
ICA9 (3/5) MC74AC32M
ICA10 (2/7) SN74HC04ANS
ICA9 (4/5) MC74AC32M
MD0 3/5
MD1 3/5
MD2 3/5
MD3 3/5
MD4 3/5
MD5 3/5
MD6 3/5
MD7 3/5
RESET* 1/5
FRSY* 1,5/5
VISY* 4/5
TCSYINT* 1/5
ICB11 (2/5) 74F32SJ
R51 3.3k
R52 10k
D6 1S2835-T1
R53 2.2k
ICB6 (2/7) MC74AC04M
R54 2.2k
ICC10 MB8421-90LPFQ
DUAL PORT RAM
C10
C27 0.1
C28 0.1
A0R–A10R
A0L–A10L
IO0R–IO7R
IO0L–IO7L
WER
OER
CSR
BSYR
INTR
WEL
OEL
CSL
BSYL
INTL
A0 1/5
A1 1/5
A2 1/5
A3 1/5
A4 1/5
A5 1/5
A6 1/5
A7 1/5
A8 1/5
A9 1/5
A10 1/5
D0 1/5
D1 1/5
D2 1/5
D3 1/5
D4 1/5
D5 1/5
D6 1/5
D7 1/5
MWR* 1/5
MRD* 1/5
MEM1* 1/5
READY 1/5
ICB6 (6/7) MC74AC04M
COMRAM 1/5
MASTER RDY 1/5
ICC7 CXD1095Q
C7
C29 0.1
R55 22k
R56 22k
R57 22k
R58 22k
MUTE 3/5
CKSEL3 3/5
CKSEL4 3/5
PA0–PA7
PB0–PB7
PC0–PC7
PD0–PD7
PX0–PX3
D0–D7
A0 A1 A2
CS RD WR RST CLR
PC0
XRESET 1/5
VIDEO/WORD* 3/5
DI UNLOCK* 3/5
NO VIDEO* 3/5
48K UNLOCK* 3/5
V UNLOCK* 3/5
NO WORD* 3/5
ICB11 (3/5) 74F32SJ
ICB11 (4/5) 74F32SJ
ICA10 (6/7) SN74HC04ANS
1
2
3
4
5
A
B
C
D
E
F
G
H

INTERFACE BOARD
IF-411 (2/5)
1-649-034-12
DABK-3102;#10001-


FROM CN-648 CN175
D-I SYNC (+)
D-I SYNC (G)
D-I SYNC (-)
WORD SYNC/ REF VIDEO
IN
THROUGH OUT (AUTO 75Ω)
CN173
S201
EXT WORD
REF VIDEO
VIDEO/WORD*
H4
H2
F1
C1
C2
DI UNLOCK*
NO WORD*
REF VIDEO IN
VIDEO/WORD*
48K UNLOCK*
1/2FS*
CKSEL3
CKSEL4
DATA
INT64FS*
INT2FS*
INTFS
MUTE
AES D-O (+)
AES D-O (G)
AES D-O (-)
TO CN-648 CN175
15V
5V
1
2
3
4
5
A
B
C
D
E
F
G
H

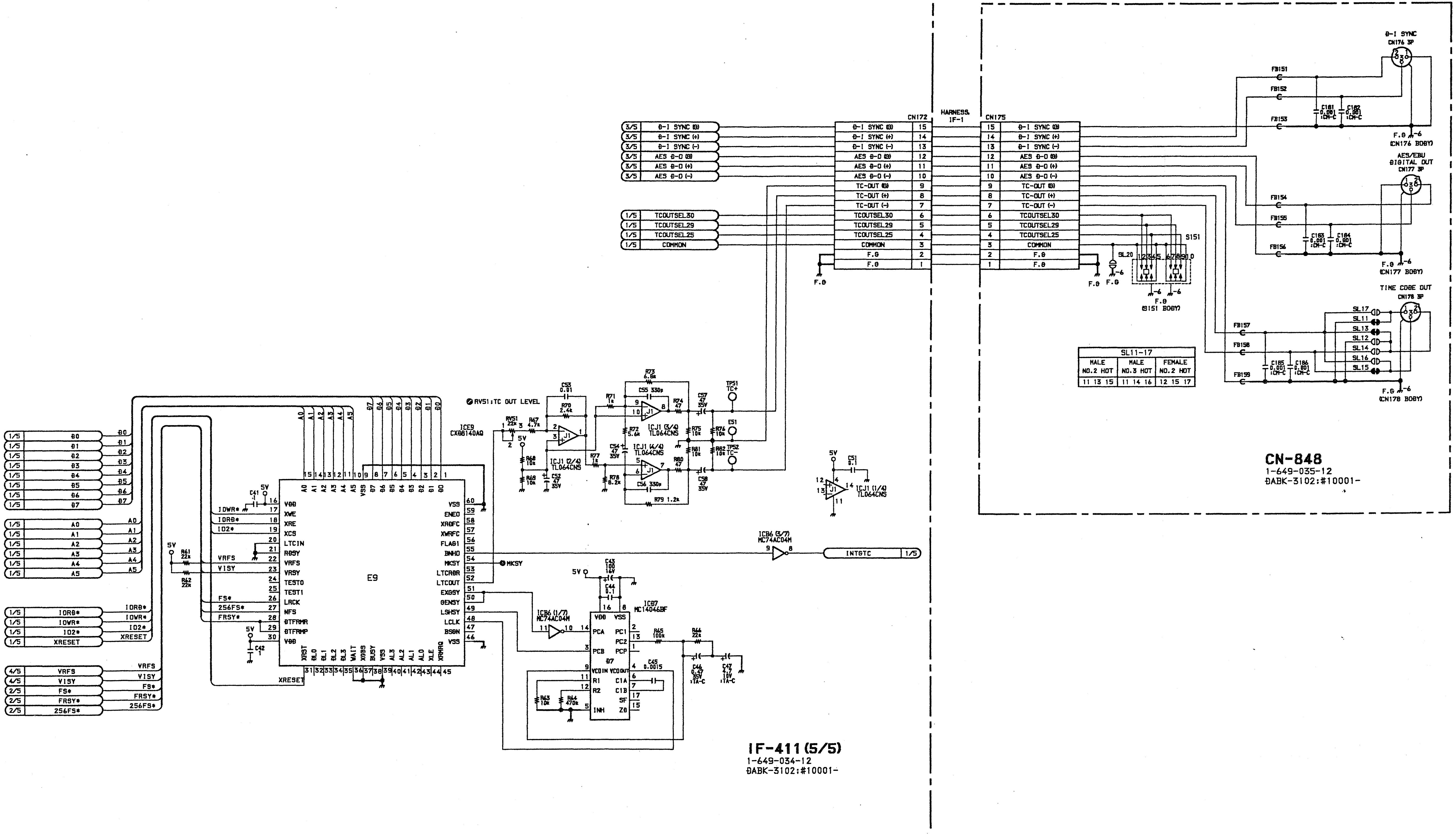
INTERFACE BOARD
IF-411 (3/5)
1-649-034-12
DABK-3102;#10001-

IF-411 BOARD (4/5) DABK-3102


1
2
3
4
5
TP252 VISY
VISY 3,5/5
VISY* 2/5
VIDEO FREQ 1/5
VFREQ* 1/5
NO VIDEO* 2/5
1/2FS* 3/5
V UNLOCK* 2/5
VRFS 5/5
V512 2/5
R6V512 2/5
3/5 REF VIDEO IN
3/5 VIDEO/WORD*
IC410 LM1881N
IC11 SN74HC74ANS
IC12 TC74HC123AF
IC J7 TC74HC123AF
IC J8 SN74HC4040ANS
IC G8 SN74HC4040ANS
IC H8 SN74HC4040ANS
IC F6 SN74HC4040ANS
IC H9 MC74HC390F
IC F7 CX23045A
IC G4 MC78L05M
IC E7 TLC272CPS
IC G6 LM393PS
IC L7 TL084CNS
IC H7 TL082CPS
IC G9 SN74HC21ANS
IC E6 SN74HCU04ANS
Q251 2SC2712B-TE85L
Q252 2SA1162B-TE85L
Q253 2SA1162B-TE85L
Q254 2SC2712B-TE85L
Q255 2SJ104GL-TE85L
Q256 2SJ104GL-TE85L
Q257 DTC143ZK-T146
TP257 NO V
TP258 24K
TP259 44.1K
TP260 30K
TP256 CV
TP254 17M
RV251: VIDEO PLL FREE RUN FREQ
VIDEO
5V
12V
-12V
A
B
C
D
E
F
G
H

INTERFACE BOARD
IF-411 (4/5)
1-649-034-12
ĐABK-3102;#10001-

4-14


IF-411 (5/5)
1-649-034-12
DABK-3102:#10001-
CN-848
1-649-035-12
DABK-3102:#10001-
CN172
HARNESS IF-1
CN175
D-1 SYNC (G)
D-1 SYNC (+)
D-1 SYNC (-)
AES D-O (G)
AES D-O (+)
AES D-O (-)
TC-OUT (G)
TC-OUT (+)
TC-OUT (-)
TCOUTSEL30
TCOUTSEL29
TCOUTSEL25
COMMON
F.G
D-I SYNC CN176 3P
AES/EBU DIGITAL OUT CN177 3P
TIME CODE OUT CN178 3P
(CN176 BODY)
(CN177 BODY)
(CN178 BODY)
(S151 BODY)
S151
SL20
FB151
FB152
FB153
FB154
FB155
FB156
FB157
FB158
FB159
SL11-17
MALE NO.2 HOT
MALE NO.3 HOT
FEMALE NO.2 HOT
11 13 15
11 14 16
12 15 17
RV51:TC OUT LEVEL
IC E9 CX68140AQ
E9
IC J1 (1/4) TL064CNS
IC J1 (2/4) TL064CNS
IC J1 (3/4) TL064CNS
IC J1 (4/4) TL064CNS
IC B6 (1/7) MC74AC04M
IC B6 (3/7) MC74AC04M
IC B7 MC14046BF
TP51 TC+
TP52 TC-
E51
MKSY
INTGTC
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
A2
A3
A4
A5
IORD*
IOWR*
IO2*
XRESET
VRFS
VISY
FS*
FRSY*
256FS*
1/5
2/5
3/5
4/5
5V
1
2
3
4
5
A
B
C
D
E
F
G
H

CN-848 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
CN175	1-506-494-11	s	CONNECTOR 15P, MALE
CN176	1-568-006-11	s	CONNECTOR, XLR 3P, FEMALE
CN177	1-568-005-11	s	CONNECTOR, XLR 3P, MALE
CN178	1-568-005-11	s	CONNECTOR, XLR 3P, MALE
FB151	1-543-256-11	s	BEAD, FERRITE
FB152	1-543-256-11	s	BEAD, FERRITE
FB153	1-543-256-11	s	BEAD, FERRITE
FB154	1-543-256-11	s	BEAD, FERRITE
FB155	1-543-256-11	s	BEAD, FERRITE
FB156	1-543-256-11	s	BEAD, FERRITE
FB157	1-543-256-11	s	BEAD, FERRITE
FB158	1-543-256-11	s	BEAD, FERRITE
FB159	1-543-256-11	s	BEAD, FERRITE
S151	1-571-060-11	s	SWITCH, SLIDE

IF-411 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-526-659-00	o	SOCKET, IC 28P
1pc	1-953-535-11	o	HARNESS (IF-1)
1pc	2-355-254-01	s	SPACER (A), LCD
1pc	3-185-675-03	o	PANEL, OPTION (1)
1pc	3-186-295-01	o	SHEET, PANEL
1pc	7-685-546-19	s	SCREW +BTP 3X8 TYPE2 N-S
2pcs	7-682-548-04	s	SCREW +B 3X8
2pcs	7-685-646-79	s	SCREW +BVTP 3X8 TYPE2 IT3
3pcs	3-186-294-01	s	SPRING, SHIELD
3pcs	4-374-303-01	s	RIVET, NYLON
3pcs	7-682-546-04	s	SCREW +B 3X5
6pcs	7-628-254-00	s	SCREW +PS 2.6X5
C20	1-136-153-00	s	FILM 0.01uF 5% 50V
C30	1-126-924-11	s	ELECT 330uF 20% 10V
C31	1-126-948-11	s	ELECT 100uF 20% 35V
C32	1-126-948-11	s	ELECT 100uF 20% 35V
C35	1-126-933-11	s	ELECT 100uF 20% 16V
C36	1-126-933-11	s	ELECT 100uF 20% 16V
C43	1-124-455-00	s	ELECT 100uF 20% 16V
C46	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C47	1-135-210-11	s	TANTALUM, CHIP 4.7uF 20% 10V
C52	1-126-947-11	s	ELECT 47uF 20% 35V
C54	1-126-947-11	s	ELECT 47uF 20% 35V
C55	1-163-263-11	s	CERAMIC, CHIP 330PF 5% 50V
C56	1-163-263-11	s	CERAMIC, CHIP 330PF 5% 50V
C57	1-126-947-11	s	ELECT 47uF 20% 35V
C58	1-126-947-11	s	ELECT 47uF 20% 35V
C109	1-136-169-00	s	MYLAR 0.22uF 5% 50V
C110	1-136-169-00	s	MYLAR 0.22uF 5% 50V
C201	1-136-169-00	s	MYLAR 0.22uF 5% 50V
C202	1-136-169-00	s	MYLAR 0.22uF 5% 50V
C206	1-126-947-11	s	ELECT 47uF 20% 35V
C208	1-136-177-00	s	FILM 1uF 5% 50V
C209	1-136-162-00	s	FILM 0.056uF 5% 50V
C210	1-126-947-11	s	ELECT 47uF 20% 35V
C212	1-126-947-11	s	ELECT 47uF 20% 35V
C214	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C226	1-126-933-11	s	ELECT 100uF 20% 16V
C230	1-126-947-11	s	ELECT 47uF 20% 35V
C232	1-136-177-00	s	FILM 1uF 5% 50V
C234	1-136-165-00	s	FILM 0.1uF 5% 50V
C250	1-126-947-11	s	ELECT 47uF 20% 35V
C251	1-126-964-11	s	ELECT 10uF 20% 50V
C252	1-126-964-11	s	ELECT 10uF 20% 50V
C253	1-136-169-00	s	MYLAR 0.22uF 5% 50V
C254	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
C257	1-163-243-11	s	CERAMIC, CHIP 47PF 5% 50V
C258	1-136-177-00	s	FILM 1uF 5% 50V
C260	1-136-177-00	s	FILM 1uF 5% 50V
C261	1-136-177-00	s	FILM 1uF 5% 50V
C264	1-126-947-11	s	ELECT 47uF 20% 35V
C265	1-136-165-00	s	FILM 0.1uF 5% 50V
C266	1-136-165-00	s	FILM 0.1uF 5% 50V
C269	1-104-533-11	s	FILM, CHIP 330PF 5% 50V
C270	1-104-539-11	s	FILM, CHIP 0.001uF 5% 50V
C274	1-126-947-11	s	ELECT 47uF 20% 35V
C275	1-104-563-11	s	FILM, CHIP 0.1uF 5% 16V

NOTE: Please see page 6-6 for the parts that are not listed in the parts list.

(IF-411 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C276	1-163-263-11	s	CERAMIC, CHIP 330PF 5% 50V
C293	1-163-243-11	s	CERAMIC, CHIP 47PF 5% 50V
C302	1-124-455-00	s	ELECT 100uF 20% 16V
C306	1-126-022-11	s	ELECT 47uF 20% 25V
C308	1-136-177-00	s	FILM 1uF 5% 50V
C310	1-136-165-00	s	FILM 0.1uF 5% 50V
CN172	1-506-494-11	s	CONNECTOR 15P, MALE
CN173	1-766-515-11	s	CONNECTOR, BNC, FEMALE
CN174	1-563-323-11	s	CONNECTOR, D-SUB 9P, FEMALE
D1	8-719-801-78	s	DIODE 1SS184
D2	8-719-104-34	s	DIODE 1S2835
D3	8-719-801-78	s	DIODE 1SS184
D4	8-719-104-34	s	DIODE 1S2835
D6	8-719-104-34	s	DIODE 1S2835
D7	8-719-938-75	s	DIODE SB05-05CP
D8	8-719-104-34	s	DIODE 1S2835
D101	8-719-801-78	s	DIODE 1SS184
D102	8-719-104-34	s	DIODE 1S2835
D201	8-719-801-78	s	DIODE 1SS184
D202	8-719-104-34	s	DIODE 1S2835
D202	8-719-104-34	s	DIODE 1S2835
D203	8-719-800-76	s	DIODE 1SS226
D204	8-719-049-02	s	DIODE KV1382A-1
D251	8-719-104-34	s	DIODE 1S2835
D252	8-719-105-32	s	DIODE RD2.7MB2
D253	8-719-021-31	s	DIODE UZM5.1B
D254	8-719-801-78	s	DIODE 1SS184
D255	8-719-801-78	s	DIODE 1SS184
D256	8-719-049-03	s	DIODE KV1851A-1
D257	8-719-938-75	s	DIODE SB05-05CP
D301	8-719-049-00	s	DIODE KV1362A-1
FB1	1-543-256-11	s	BEAD, FERRITE
FB2	1-543-256-11	s	BEAD, FERRITE
FB3	1-543-256-11	s	BEAD, FERRITE
FB4	1-543-256-11	s	BEAD, FERRITE
FB5	1-543-256-11	s	BEAD, FERRITE
FB6	1-543-256-11	s	BEAD, FERRITE
FB7	1-543-256-11	s	BEAD, FERRITE
FB8	1-543-256-11	s	BEAD, FERRITE
FB9	1-543-256-11	s	BEAD, FERRITE
ICA9	8-759-036-41	s	IC MC74AC32M
ICA10	8-759-925-74	s	IC TC74HC04ANS
ICA11	8-759-925-74	s	IC TC74HC04ANS
ICA12	8-759-143-23	s	IC UPD71059GB-3B4
ICB2	8-759-926-23	s	IC SN74HC163ANS
ICB3	8-759-926-23	s	IC SN74HC163ANS
ICB5	8-759-985-35	s	IC 74AC153SJ
ICB6	8-759-036-25	s	IC MC74AC04M
ICB1A	8-759-708-12	s	IC NJM78L12A
ICB1B	8-759-700-69	s	IC NJM79L12A
ICB11	8-759-989-03	s	IC 74F32SJ
ICC1	8-759-007-80	s	IC MC74HC175F
ICC2	8-752-304-30	s	IC CX23043
ICC3	8-759-970-59	s	IC TLC272CPS
ICC7	8-759-938-68	s	IC CXD1095Q
ICC10	8-759-973-43	s	IC MB8421-90LPFQ

(IF-411 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
ICC11	8-759-925-85	s	IC SN74HC32ANS
ICC12	8-759-113-55	s	IC UPD71054GB
ICD3	8-759-927-29	s	IC SN74HCU04NS
ICD4	8-752-306-51	s	IC CX23065A
ICD5	8-759-013-33	s	IC MC78L05M
ICD6	8-759-988-13	s	IC LM393PS
ICD7	8-759-009-02	s	IC MC14046BF
ICD11	8-759-299-24	o	IC 27C512-02D11-V1.00, EPROM
ICD12	8-759-151-04	s	IC UPD43256AGU-10LL
ICE1	8-759-927-29	s	IC SN74HCU04NS
ICE3	8-759-988-13	s	IC LM393PS
ICE6	8-759-927-29	s	IC SN74HCU04NS
ICE7	8-759-970-59	s	IC TLC272CPS
ICE9	8-759-520-62	s	IC CXD8140AQ
ICF1	8-759-252-89	s	IC AD1890JP
ICF3	8-759-931-43	s	IC SN74LS624NS
ICF5	8-759-013-90	s	IC MC74HC107F
ICF6	8-759-926-98	s	IC SN74HC4040ANS
ICF7	8-752-306-51	s	IC CX23065A
ICF12	8-759-926-11	s	IC SN74HC138ANS
ICG3	8-752-306-51	s	IC CX23065A
ICG6	8-759-013-33	s	IC MC78L05M
ICG8	8-759-926-98	s	IC SN74HC4040ANS
ICG9	8-759-925-82	s	IC SN74HC21ANS
ICG12	8-759-992-23	s	IC 74F138SJ
ICH2	8-759-062-88	s	IC CXD8277Q
ICH3	8-759-061-67	s	IC MC34051M
ICH4	8-752-340-07	s	IC CXD2604Q
ICH7	8-759-239-55	s	IC TC74HC123AF
ICH8	8-759-926-98	s	IC SN74HC4040ANS
ICH9	8-759-008-13	s	IC MC74HC390F
ICH10	8-759-151-97	s	IC UPD70320GJ-8-5BG
ICJ1	8-759-906-54	s	IC TL064CNS
ICJ6	8-759-925-90	s	IC SN74HC74ANS
ICJ7	8-759-239-55	s	IC TC74HC123AF
ICJ8	8-759-926-98	s	IC SN74HC4040ANS
ICJ9	8-759-925-72	s	IC SN74HC02ANS
ICK9	8-759-927-29	s	IC SN74HCU04NS
ICK12	8-759-061-67	s	IC MC34051M
ICL6	8-759-239-55	s	IC TC74HC123AF
ICL7	8-759-908-92	s	IC TL084CNS
ICL11	8-759-925-90	s	IC SN74HC74ANS
ICM7	8-759-981-48	s	IC NJM082M
ICM10	8-759-987-27	s	IC LM1881M
ICM11	8-759-925-76	s	IC SN74HC08ANS
ICM12	8-759-239-55	s	IC TC74HC123AF
L1	1-412-533-21	s	INDUCTOR 47uH
L2	1-408-785-21	s	INDUCTOR CHIP 47uH
L3	1-408-785-21	s	INDUCTOR CHIP 47uH
L201	1-408-777-00	s	INDUCTOR CHIP 10uH
L202	1-408-785-21	s	INDUCTOR CHIP 47uH
L203	1-408-398-21	s	INDUCTOR 1.2uH
L301	1-408-785-21	s	INDUCTOR CHIP 47uH
L302	1-408-767-21	s	INDUCTOR CHIP 1.5uH

NOTE: Please see page 6-6 for the parts that are not listed in the parts list.

(IF-411 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q251	8-729-230-49	s	TRANSISTOR 2SC2712-Y
Q252	8-729-216-22	s	TRANSISTOR 2SA1162
Q253	8-729-216-22	s	TRANSISTOR 2SA1162
Q254	8-729-230-49	s	TRANSISTOR 2SC2712-Y
Q255	8-729-203-32	s	TRANSISTOR 2SJ106-BL
Q256	8-729-203-32	s	TRANSISTOR 2SJ106-BL
Q257	8-729-907-53	s	TRANSISTOR DTC143ZK-T146
R36	1-215-461-00	s	METAL 47K 5% 1/4W
R39	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R40	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R53	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R54	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R70	1-216-660-11	s	METAL, CHIP 2.4K 0.5% 1/10W
R72	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R79	1-216-051-00	s	METAL, CHIP 1.2K 5% 1/10W
R201	1-216-628-11	s	METAL, CHIP 110 0.5% 1/10W
R205	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R206	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R207	1-208-812-11	s	METAL, CHIP 18K 0.50% 1/10W
R208	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R212	1-218-263-11	s	METAL, CHIP 75 5% 1/2W
R213	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R214	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R215	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R216	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R218	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R219	1-216-695-11	s	METAL, CHIP 68K 0.5% 1/10W
R223	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R224	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R225	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R226	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R229	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R233	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R251	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R252	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R253	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R254	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R255	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R256	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R257	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R258	1-216-646-11	s	METAL, CHIP 620 0.5% 1/10W
R261	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R262	1-218-768-11	s	METAL 470K 0.5% 1/10W
R263	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R264	1-218-776-11	s	METAL 1M 0.5% 1/10W
R265	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R267	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R268	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R269	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R270	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R271	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R272	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R273	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R274	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R275	1-216-621-11	s	METAL, CHIP 56 0.5% 1/10W
R276	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R277	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R278	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R279	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R280	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R281	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R282	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R284	1-216-129-00	s	METAL, CHIP 2.2M 5% 1/10W
R285	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
R287	1-208-803-11	s	METAL, CHIP 7.5K 0.50% 1/10W
R288	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R301	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R302	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R303	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R304	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R307	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R310	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R312	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
RV51	1-241-765-11	s	RES, ADJ METAL 22k
RV251	1-241-767-21	s	RES, ADJ, CERMET 100K
S101	1-570-598-11	s	SWITCH, DIP 4-CKT
S201	1-554-123-00	s	SWITCH, SLIDE
S251	1-553-977-00	s	SWITCH, SLIDE
T101	1-437-194-21	s	TRANSFORMER, PULSE
T201	1-437-194-21	s	TRANSFORMER, PULSE
X1	1-577-076-11	s	CRYSTAL, 16.000MHz
X101	1-567-908-11	s	CRYSTAL 16.9344MHz
X251	1-760-400-11	s	CRYSTAL 17.64MHz

SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	8-759-299-23	o	IC 27C010-AU-B10-V2.00, EPROM
2pcs	4-886-821-31	s	SCREW, M3 CASE

NOTE: Please see page 6-6 for the parts that are not listed in the parts list.